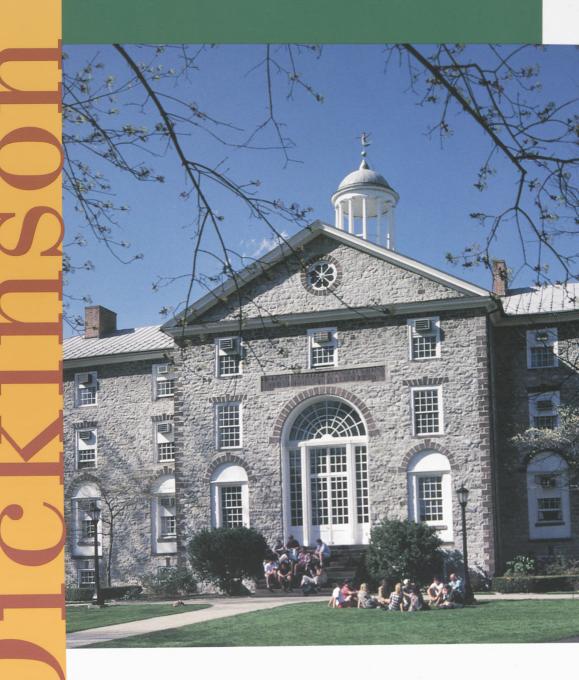
## College Catalogue



## Accreditation

The principal accrediting agency for the College is the Middle States Association of Colleges and Secondary Schools. Other agencies accrediting or recognizing Dickinson are the University Senate of the United Methodist Church, the Pennsylvania Department of Education, the University of the State of New York, and the American Chemical Society.

## Directions for Correspondence

General College Policy

A. Lee Fritschler, President of the College

Academic Information

Lisa A. Rossbacher, Dean of the College

Admissions

R. Russell Shunk, Dean of Admissions

Business and Financial Affairs

Michael L. Britton, Treasurer

Development, Communications, and Alumni Relations

Robert E. Freelen, Vice President for External Affairs

Financial Aid

Donald V. Raley, Director of Financial Aid

Off-Campus Study (including Study Abroad)

John S. Henderson, Director

Records and Transcripts

Ronald E. Doernbach, Registrar

Student Affairs and Residential Life

Betsy K. Emerick, Dean of Educational Services

Summer School and Continuing Education

Paul T. Riggs, Assistant to the Office of Academic Affairs

College Telephone Number: 717-243-5121

Production of this catalogue is under the direction of the Office of Academic Affairs. Information given here is correct as of the date of publication. Unexpected changes may occur during the academic year; therefore, the listing of a course or program in this catalogue does not constitute a guarantee or contract that the particular course or program will be offered during a given year.

Dickinson College is an intellectual and social community which values justice, free inquiry, diversity, and equal opportunity. It is a fundamental policy of the College to respect pluralism and to promote tolerance, civility, and mutual understanding within its community. The College does not discriminate on such bases as race, color, sex, political and religious beliefs, marital status, age, sexual orientation, national and ethnic origins, veteran's status, or disability.

## Dickinson College

**Founded:** 1773, one of the 15 colonial colleges. Named to honor John Dickinson, the penman of the American Revolution and a signer of the Constitution.

**Curriculum:** a four-year program of study in the liberal arts. The academic calendar consists of fall and spring semesters and an optional summer term.

Degrees granted: Bachelor of Arts, Bachelor of Science

Major fields of study: American studies, anthropology, biology, chemistry, computer science, dramatic arts, East Asian studies, economics, English, environmental science, environmental studies, fine arts, French, geology, German, Greek, history, international studies, Italian studies, Judaic studies, Latin, mathematics, music, philosophy, physics, policy studies, political science, psychology, religion, Russian, Russian area studies, sociology, Spanish.

Special programs: archaeology, comparative civilizations, financial and business analysis, Latin American studies, military science (ROTC), secondary teaching certification, women's studies.

**Special options:** pre-professional preparation: law, medicine, business, ministry, journalism, binary engineering; double majors, self-developed majors, departmental honors, tutorial study, independent study, independent research; internships; study-abroad programs.

Number of faculty: 148, plus 31 academic support faculty; of the permanent faculty 99 percent have earned the Ph.D. or other highest degree.

Student-faculty ratio: 12:1

**Average class size:** 18 students per class; 84 percent of all offerings are conducted with 30 or fewer students; 52 percent of all offerings have 15 or fewer students. Of the 390 offerings in the fall 1995 semester, only 1 had more than 50 students.

**Location:** Carlisle, founded 1756, is a pre-revolutionary town of 20,000 people located in the Cumberland Valley of central Pennsylvania. Interstate highway, rail, and air transportation link all major east-coast cities. Driving times to: Harrisburg, 1/2 hour; Baltimore, 2 hours; Washington, D.C., 2 1/2 hours; Philadelphia, 2 1/2 hours; Pittsburgh, 4 hours; New York, 4 hours.

Size of campus: 103 acres; 85-acre main campus and 18-acre recreational area close by.

**Library facilities:** 421,710 volumes, 156,476 government documents; 1,735 current periodicals; 163,998 sheets of microfiche; 11,771 reels of microfilm; 9,420 sound recordings; 2,049 videotapes.

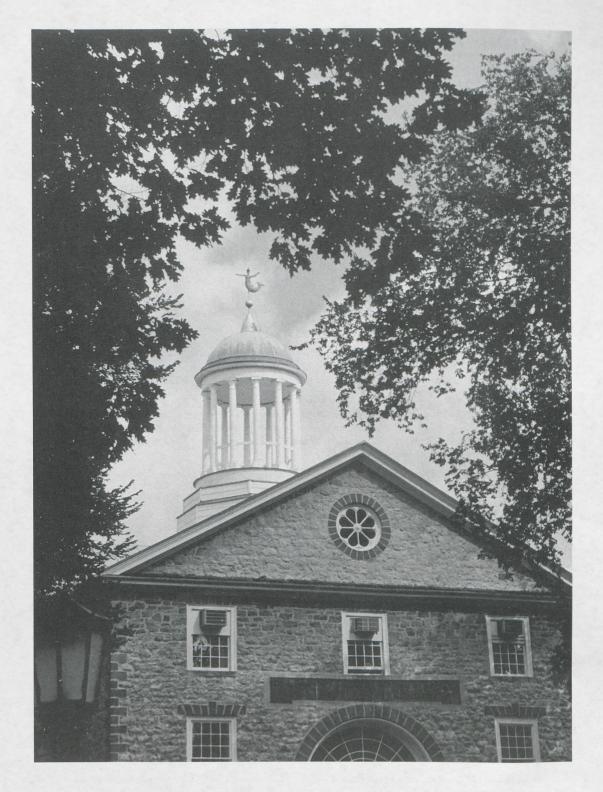
Computer facilities: Three DEC Alpha machines; 56 Macintosh, 27 IBM-compatible, and 28 terminals in seven open facilities for students; a training room with 10 microcomputers; 160 micros and 20 terminals for students in specific departments; Micro VAX and Sun workstations for mathematics and computer science students. Faculty, administration, and staff use an additional 560 micros and 72 terminals. Students use a wide range of software for word processing (primarily WordPerfect), statistical analysis, electronic mail (on campus as well as to other schools), graphics, electronic submission of papers, programming, and searching the on-line catalogue of the library. The College is connected to the Internet. All students are assigned accounts on one of the DEC Alpha machines as freshmen. Connections to the campus network are available in all student rooms. There are no charges for computer use. The College is able to sell microcomputers to students at significant discounts through the Bookstore.

**Residence Halls:** 50 facilities housing between four and 198 students. Housing options include male, female, and coed residence halls. Some housing is available for students with special interests such as foreign languages, multicultural affairs, the arts, and for social interest groups.

**Student enrollment:** 1,840 on campus plus 120 in various domestic and international study programs. Students come from 41 states, the District of Columbia, one U.S. territory, and 31 foreign countries.

Student Financial Aid: Nearly 65 percent of all students receive financial assistance in some form. Approximately 55 percent receive grant aid from the college.

College Financial Data: Facilities Value (as of 6/30/95), \$222 million; Total Endowment Value (as of 6/30/95), \$90,331,092; Operating Budget for 1995-1996 academic year, \$58,204,081.



## History of the College

he citizens of frontier Carlisle founded a grammar school in 1773 on land donated by Thomas and John Penn, but classes were temporarily suspended when the first schoolmaster went off to serve at Valley Forge. With an optimism buoyed by colonial independence, Philadelphia physician Benjamin Rush argued that the fledgling grammar school should be transformed into a college that would be "a source of light and knowledge to the western parts of the United States," to the wilderness lands stretching west from the Susquehanna. John Dickinson, the governor of Pennsylvania and drafter of the Articles of Confederation, was persuaded by this argument, and on September 9, 1783, a charter was approved by the "Representatives of the Freemen of the Commonwealth of Pennsylvania." The new college, founded by Presbyterians but with an independent Board of Trustees, was dedicated to "the instruction of Youth in the learned languages" and in the "useful arts, Sciences, and Literature."

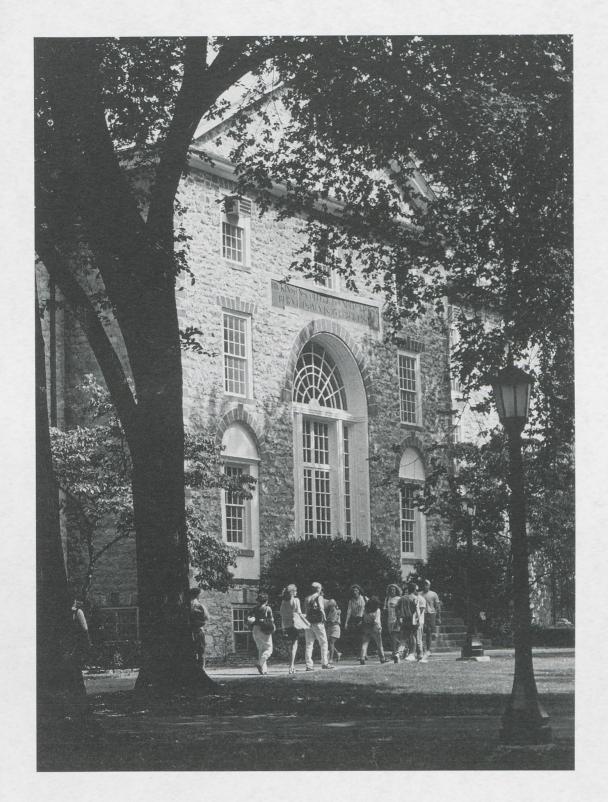
Charles Nisbet, a Calvinist minister from Scotland, was the first Principal of the College. His insistence on rationality and high standards of learning set the tone for Dickinson in its early years, and encouraged the founding of two of the nation's oldest continuing literary societies, the Belles Lettres in 1786 and the Union Philosophical in 1789. Chief Justice Roger Brooke Taney and President James Buchanan were among their early student members. The College's first permanent building, Old West, was completed in 1804. It was designed by Benjamin Latrobe, the architect of the Capitol building in Washington, and was crowned by a weathervane replica of a classical sea deity. This deity was rendered by a local coppersmith in the form of a buxom mermaid which has ever since been one of the distinctive symbols of this otherwise very inland campus.

In the early 19th century the dour traditionalism of President Atwater clashed with the Jeffersonian radicalism of Thomas Cooper, who made it possible for the College to purchase his late friend Joseph Priestley's scientific apparatus. Because of these controversies, Dickinson fell on hard times until 1834 when it came under the sponsorship of Methodists, regaining educational vitality through the leadership of its new president, John Price Durbin. During the Civil War, Dickinson sent her sons to fight on both sides, hopeful "that college loyalties would bind where civil strife separated."

In the years after the war, Dickinson leavened its abiding commitment to liberal education with a number of interesting innovations. The College became coeducational in 1884 in response to the courage of its first woman student, Zatae Longsdorf. The law department, inaugurated in 1833, became the Dickinson School of Law in 1890 and, since 1917, independent from the College. Dickinson introduced elective courses for its students, and under President George Reed fashioned for a time a Department of Peace and Public Service. Following World War I, James Henry Morgan presided over a new educational experiment which required students to graduate with a major field of concentration as a part of their general baccalaureate.

Since 1960, under the leadership of Presidents Howard L. Rubendall, Samuel Alston Banks, and A. Lee Fritschler, Dickinson College has developed a balanced and diverse curriculum of the liberal arts. Strong disciplinary programs have cooperated in fostering a range of interdisciplinary and area studies opportunities. This in turn has led to strengths in international education, the natural and mathematical sciences, the arts, and pre-professional preparation. The curriculum has been further enriched by such programs as freshman seminars, internships, and cooperative student-faculty research.

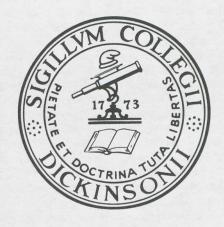
Dickinson's gray-walled campus has always served as a park and playing field for students, its history punctuated by major fires, by the bivouac of a Confederate Army in 1863, by the parade drill of soldiers in 1917 and 1942. For a time professors and students cultivated cabbages and onions on the academic quad. Today classes are often held on the campus grass in spring and summer weather, and there also Commencement ceremonies occur by "the old stone steps" of Old West.



## 1996-1997 BULLETIN

## DICKINSON COLLEGE

Carlisle, Pennsylvania 17013-2896



The distinctive Dickinson College seal was devised and recommended by John Dickinson and Dr. Benjamin Rush at a board of trustees meeting in April 1784. Rush conceived the symbolic design: a liberty cap above a telescope, which is in turn above an open book; and Dickinson provided the motto: *Pietate et doctrina tuta libertas*. One translation is "Liberty is made safe by virtue and learning." A Rush letter to Dickinson in June 1785 refers to the College as the "bulwark of liberty, religion and learning."

## Using This Catalogue

Y elcome to the Dickinson College catalogue. This publication is designed to set forth in detail and as clearly as possible the resources which the College offers to its students. We believe that the catalogue is essential reading because it reveals the philosophy, the programs, and the character of the College and its people. It will help you gain a better understanding of Dickinson by presenting our point of view concerning the importance of the liberal arts in higher education, as well as the programs-academic and residential-that Dickinson has developed. It is a discussion of what we are, what we believe, and what we support.

If you are a prospective applicant to Dickinson, you will want to pay particular attention to the General Information section, where you will learn about the Dickinson educational experience, including the College's commitment to the liberal arts tradition, an overview of our curriculum, and an introduction to our residential environment. Information on admission, expenses, and financial aid also is found there.

Information that you will need to build a four-year program of study is grouped together under the Academic Program section. The introductory essay describes what it is like to study at Dickinson, the depth, breadth, and flexibility we offer within our liberal arts program. Information on requirements for the degree will show you the shape of your educational experience, while the departmental listings will give you the specific details. Each listing includes names and brief biographic statements of members of the 1996-97 faculty as of April 1, 1996, the title and description of all courses, and requirements for a major or minor in each area. You should pay particular attention to the flexibility provided by our special approaches to study and our special programs, including several nontraditional options such as independent study and research, internships, selfdeveloped majors, study abroad, and other off-campus study opportunities. Cocurricular activities and academic resources are described so that you may understand the contribution they make to the educational experience. There are many cross references,

but if you cannot find a particular program, please refer to the index to see if it is offered under a slightly different name.

The section on Living and Learning on Campus will give you a feel for what campus life is like. In addition to extensive faculty advising and preprofessional counseling programs, there is an endless variety of cultural and artistic programs and extracurricular activities. Opportunities for involvement in student government are found here as well as a description of our campus itself.

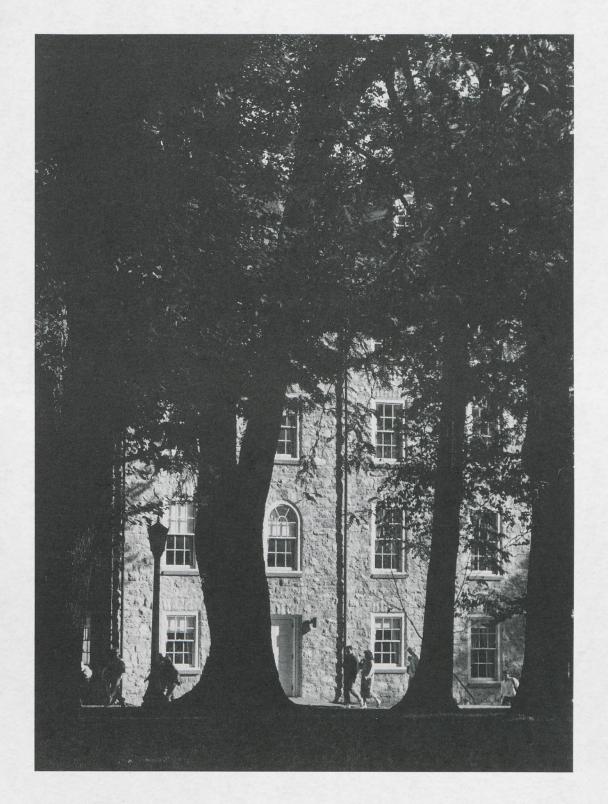
A complete list of teaching faculty, academic professionals, and other College personnel is found in the Reference Section. Beginning on page 255 is an index. A map of the campus appears on pages 250 and 251 and a College calendar is included inside the back cover.

Further information on programs and options contained in this catalogue, as well as a viewbook, may be obtained from the Office of Admissions. Several brochures are also available containing more detailed information about specific subjects. The exact schedule of fall and spring classes is contained in the Master Schedule of Classes booklet published by the registrar's office prior to the beginning of each semester and distributed to students on campus. The booklet may also be consulted in the Office of Admissions. The summer schedule of courses is provided separately in the Summer School Catalogue published each spring.

The living-learning experience that Dickinson makes available to its students is impressive. It is based upon the premise that the students will have the initiative to utilize fully the resources provided by the College's programs, its facilities, and-most important—its people.

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## General Information

## Dickinson College: An Overview

### The Liberal Arts Tradition

What you first notice about Dickinson College when you step onto the campus are the beautiful old stone buildings and the tall shade trees. What you soon discover, however, is the College's strong liberal arts tradition. For over 220 years, students have come to Dickinson for one enduring purpose—to gain a quality liberal arts education. Nurtured by their college experience, Dickinson graduates have gone on to enjoy personally satisfying and professionally useful lives.

At Dickinson, we believe in academic breadth. Every area of study essential to the liberal arts is represented in the curriculum, and through the distribution requirements students explore a wide variety of academic offerings. In the 1780s, the essential fields of study were Latin, geography, and moral philosophy. Now, in the 1990s, students may select courses from two mathematical sciences and six natural sciences; from eight modern and three classical languages; from philosophy, religion, literature, and four forms of the arts; and from six different social sciences. In addition to these fundamental disciplines, students may also undertake a diverse range of interdisciplinary study.

Dickinson is committed to balance and quality across its curriculum. Students will find, for instance, that both computer science and Russian literature are thriving at Dickinson, that studio art and experimental psychology are equally essential to the strength of our course offerings. It is healthy and natural for a student's interests to change from the freshman to senior year, and Dickinson firmly believes that students should be able to alter their academic focus without lessening the overall quality of their academic program. For this reason, students have access to 33 majors or have the opportunity with their faculty adviser to develop their own major.

The foundation for a good education includes

exposure to a full range of basic fields of study and the ability to study any of these fields in depth. For the first 150 years of Dickinson's existence, however, students did not declare a major; there weren't any. A general course of study was required of all students. Today, studying in a major field has become an important way for students to acquire depth and sophistication in at least one academic discipline. The Dickinson faculty encourages students to develop their powers of imagination and initiative in the search for relationships which link all areas of study. Some students respond by choosing to major in more than one area, by participating in interdisciplinary study programs, or by selecting a number of courses outside their major area of concentration. Through these choices, students begin to recognize how the different disciplines "fit" together. They also begin to realize that the world is not neatly divided into the natural sciences, the humanities, the social sciences, and languages.

In the truest sense, a liberal arts education is more than just the sum of all its parts. It is more than earning a degree by completing studies in a major area and taking courses in a variety of disciplines. At Dickinson, we encourage our students to learn how to learn, so that the limits of their knowledge are always being tested by their willingness to ask fresh questions and to search for more effective answers. This questioning process is at the heart of the liberal arts experience. The learning process developed through liberal arts studies can serve a student for a lifetime.

### Some Distinctive Dimensions

The Dickinson curriculum has grown, developed, and evolved over our two centuries of history. Because the traditional academic disciplines have always provided a solid foundation for innovation, four broadly integrative dimensions have emerged to give Dickinson's academic program a distinct character: the international scope of the academic programs, a laboratory/workshop approach to the natural and mathematical sciences, the cohesive nature of cross-disciplinary studies, and the emphasis on developing basic learning skills.

The first dimension is international education. Technical advances over the last century have made it all but impossible for a country or an individual to remain isolated from world events. At Dickinson, students expand their intellectual horizons by study-

ing a classical or modern language and its culture through at least the intermediate level. They enroll in comparative civilizations courses to extend these horizons beyond the Western world. Students' horizons are also expanded through an awareness of the national, ethnic, racial, and religious diversity of their own culture. The American studies major and a broad range of courses focusing on the American heritage provide this opportunity for self-understanding. It is appropriate for Dickinson, one of the colonial colleges, to define international education in terms of a dialogue between the study of American culture and a study of the world's cultures.

Students further enrich their understanding of various cultures by participating in a wide range of approved international study programs. Nearly half of our students study in another country before graduating. Dickinson sponsors its own programs in Britain, Cameroon, China, France, Germany, Italy, Japan, Spain, and Russia. It cooperates in sponsoring programs in Costa Rica and south India. The College also actively participates in respected international study programs, such as those sponsored by the Institute for European/Asian Studies. In addition, a number of majors and certification programs are provided by the College in a variety of cultural-geographic areas. Of the nation's best undergraduate colleges, Dickinson ranks first in the percentage of students majoring in a foreign language. An enhanced understanding of other people and other cultures is the goal of these programs. The faculty believes it is important for students to gain a global awareness so that they may become more effective and aware citizens.

A second distinctive dimension to our academic program is the approach to learning in the natural and mathematical sciences. From beginning courses open to all students through the senior seminar experience, Dickinson students study science in a laboratory/workshop environment. For example, geology students begin with the geological history of our own valley. Working in the field, they encounter evidence for the theories that explain changes in the earth's surface. Workshop Physics students use computers to chart their own position, velocity, and acceleration under various conditions. Continued observation and questioning enables them to discover for themselves Newton's laws of motion. Always, the emphasis is upon experimenting with and understanding concepts. Faculty and student research teams are a regular part of the experience of science majors.

The third distinctive dimension to our academic program is the way the College seeks to bridge intellectual gaps in our society. Communication skills-written, oral, and numerical-help to lessen the distance between the sciences and the humanities. Nor is it surprising to find students doublemajoring in biology and philosophy, English and economics, or music and physics. Most of our professors are themselves liberally educated and so encourage and practice this continual crossing of departmental boundaries. Joint scientific and humanistic perspectives also find avenues of expression outside the classroom. A recent Public Affairs Symposium on "The Environment" discussed both the scientific and social dimensions of this topic. Dickinson strives to educate people who will be at home in both the laboratory and the arena of public debate, who know the relevant facts, and who have a strong sense of appropriate values. An ideal Dickinson student knows well both Darwin's theories and Shakespeare's tragedies.

Another intellectual gap, the gulf which separates pre-professional preparation from the broadly liberal education needed to become mature adults, is bridged by teaching students to see the connections between study and recreation, between general education and their major field of study. Dickinson believes that the preparations necessary for doctors and business executives, for lawyers and teachers, for journalists and scientists, are all interconnected. We strive to develop a foundation of skills, knowledge, and attitudes in students which will help them become informed and effective human beings. Liberal arts graduates should be well-rounded individuals who appreciate the varieties of human knowledge and have a range of interests that extend beyond those required for any particular job. This general foundation enables our graduates to change their careers as they mature, to adapt more readily to changes in society, and to take the initiative in shaping such changes. More than half of our graduates pursue further study. At Dickinson, as many chemistry majors as biology majors go on to medical school. Nearly half of those who study for an M.B.A. come from majors other than economics. Our law school applicants major in many different subjects, with history, English, and political science being the most popular.

A fourth distinctive dimension of Dickinson's



curriculum is its emphasis on basic learning skills. Dickinson students are expected to write well and to think clearly. Geology reports should be as well-written as English literature papers. A line of reasoning in art history should be as logically reliable as an argument in mathematics or an analysis in anthropology. The College utilizes research papers and essay exams in all three academic divisions of study in order to encourage the development of these skills.

Improvement in other basic skills is also valued at Dickinson. Small classes, including freshman seminars and senior-level seminars, emphasize the skills of good conversation. Students should be able to listen well, to speak effectively, and to be sensitive to the dynamics of a group. Whether they are participants in a sociology class simulation, an informal discussion in a religion course, or a field trip for environmental studies, students should acquire the ability to develop ideas in dialogue with others, to contribute creatively to a discussion or line of inquiry, and to know how to bring it to a timely resolution. Events such as Common Hour, student concerts, end-of-semester studio art shows, and dramatic readings at the Arts House also encourage students

to gain a sense of social and emotional maturity. Some of these basic skills are nurtured in specific courses such as introductory language, beginning computer science, logic, or writing seminars. These skills are then reinforced as an important feature of intermediate and advanced courses throughout the academic program. Other skills are developed in cocurricular activities such as the Mermaid Players, the Dance Theatre Group, the Orchestra, the Choir, and the Jazz Ensemble. Dickinson's efforts in this regard are richly varied and continuously changing in response to the changing needs of students.

## The Learning Environment

Dickinson strives to provide a residential environment in which students can learn and grow on a full-time basis. The College believes that learning does not cease when a student closes the classroom door; it continues in nonclassroom settings and activities. Dickinson has a longstanding tradition in this regard. It was founded in 1773 as a residential institution. Today, nearly all Dickinson students live in one of our 17 residence halls or in one of a cluster of

Dickinson College General Information 11

traditional homes and townhouses owned by the College.

Residential facilities are an integral part of the Dickinson learning environment. Informal interactions among roommates and hallmates are opportunities for students to learn more about themselves and about others. Special interest groups such as the language houses provide a direct link between the classroom and the residence hall. In all residence settings, students have the opportunity to learn about citizenship and responsibility by developing housing regulations, determining quiet hours for study, and structuring residence governmental systems. At Dickinson, students are encouraged to develop mature interests, skills, and attitudes. They are held accountable for adult standards of behavior as a vital part of this growth process. Dickinson's goal is a residential environment that complements classroom studies and enhances the development of a student's sense of maturity and responsibility.

The extracurricular and cocurricular activities provided at Dickinson also present students with opportunities for individual development and growth. Students learn the give and take of the political process through submitting funding proposals to the Student Senate for allocations to support clubs or other organizations. Budding journalists learn the challenge of deadlines and the responsibility of being accountable for their work by writing for the Dickinsonian. The prebusiness, prehealth, and prelaw societies enable students to grasp more fully the nature of these professions and to gain insights into how best to prepare for the careers they provide. Beyond the development of specific skills and knowledge, students also learn the general skills of setting priorities and choosing involvements wisely.

Dickinson students are ingenious at devising their own clubs, organizations, and social activities. When 1,900 different individuals begin to interact, numerous possibilities exist for creativity. Concerts, films, lectures, fraternities, sororities, dance troupes, and language clubs are only a few of the many activities and groups in which students choose to participate. Drama groups, music ensembles, and sports teams provide students with the opportunity to discover new interests, to develop new skills, and to understand more fully their individual strengths and weaknesses. The College believes that selective involvement in a few of these areas will enhance and reinforce academic studies. The lure of excellence is contagious, and it finds expression throughout Dick-

inson's residential learning environment.

## Closing Thoughts

What, then, is the Dickinson educational experience? The ideas and goals expressed by the founders of Dickinson in their design of a College seal and the choice of a College motto provide an appropriate symbol for the education we strive to provide our students. The Dickinson College seal contains three items—a book of scriptures, a telescope, and a liberty cap.

The telescope symbolizes learning. Students who graduate from Dickinson have been introduced to the world's intellectual and cultural heritage, have befriended its great minds, learned its methods of problem solving, and become acquainted with its artistic and societal achievements.

The liberty cap symbolizes the ideals of political freedom and responsibility. After graduation, students will have the duties of citizenship to bear and opportunities for leadership to realize, challenges for which a Dickinson education is a valuable preparation.

The book of scriptures symbolizes moral commitment and faith. Neither past or future learning nor past or future leadership roles will be worthy of students unless they have acquired a sense of right and wrong and have a mature commitment to high standards of personal and social justice.

The College motto, inscribed within the seal, summarizes these symbols in a phrase: *Pietate et doctrina tuta libertas*; liberty is made safe by virtue and learning.

A Dickinson liberal arts education is a beginning rather than an end. Students are encouraged to develop a thirst for lifetime learning that opens them to the riches of human knowledge and prepares them to face new challenges and to welcome unrealized possibilities. We believe that the educational experiences available at Dickinson provide a solid foundation for the rest of a student's life.

## Admission

## Freshman and Transfer Students

Colleges are like people; they are all different from each other. No one college is right for every individual and no one person is right for every college. The admissions staff seeks to identify students who will benefit from the educational programs provided at Dickinson and whose goals are in harmony with the aims of a liberal arts education. Aware that students from various social, ethnic, and economic backgrounds contribute to the richness of campus life, Dickinson welcomes applications for admission from a diverse group of persons. The College is looking for students who will be actively engaged in their education in every way.

Professional admissions people, who are sensitive to the character of the Dickinson community and the qualifications and needs of applicants, make the admissions decisions at Dickinson. While computers are useful for research and the storage of data, they have no place in determining who is finally selected. People make decisions about people at Dickinson. We seek to understand each applicant as a unique person with individual characteristics, background, interests, talents, needs, goals, and preparation for college. There is no automatic formula that guarantees admission to Dickinson although all accepted candidates must be well-qualified. Each person's application for admission and credentials are read a minimum of three times by the admissions staff before a final decision is made. This is done in order to assure fairness both to the applicant and to the College.

Admission to Dickinson is highly competitive. Dickinson students are intelligent, well-prepared, and personable. Many factors are considered both individually and as a whole in the admissions process in order to gain a comprehensive impression of the applicant's personal and academic qualifications for Dickinson. The primary credentials are (1) the secondary school academic record, (2) SAT or ACT scores, (3) the official recommendation of one's secondary school guidance counselor, college adviser, headmaster, or principal, plus two recommendations from teachers, (4) the application form itself, including the essay, and (5) extracurricular activities.

The secondary school record is the most important element. We look at grades, the quality of courses taken in order to achieve those grades, the class rank and how it is computed (is the student given recognition for taking the tougher courses offered by his or her school?), and the quality of the school from which the student is applying. Dickinson admissions representatives visit over 600 secondary schools throughout the United States each year in order to gain a more comprehensive appreciation of each school and its people. In predicting academic success in college, we believe that there is no substitute for high grades earned in solid courses from a good secondary school. Such academic performance measures not only academic preparation for college but also the student's motivation, study habits, self-discipline, and desire to learn.

Although SAT I and ACT results can be helpful, they have never been the most important factor in the admissions process. These tests are not designed to measure motivation to learn, personal character, and citizenship qualities, all of which are important factors in our decisions. Further, students with strong academic credentials are often discouraged from applying to highly selective institutions because they anticipate they will perform poorly on standardized tests or believe (or are told) they have scores which would eliminate them from being competitive at such colleges. For these reasons, beginning with the class entering in 1995, the submission of SAT I or ACT scores is optional.

The official recommendation from the applicant's secondary school is prominent in the selection procedure as are the two teacher recommendations. Additional letters of recommendation also are considered in our review process although they are not required.

Dickinson seeks to create a sense of community in which the students are active participants. The admissions staff has a responsibility to admit students who will make positive contributions to that community. We seek people who have demonstrated their willingness to participate in school, family, or community activities. We look for students who have made a commitment to something for which they have had to assume responsibility and from which they have grown. What is important is not the number of activities with which an applicant has been involved but rather the quality of participation in them.

As a liberal arts college, Dickinson is committed to breadth as well as depth of quality in its curriculum. We believe that a student should have the opportunity

Dickinson College Admission 13



to explore different aspects of the curriculum before declaring a major. We do not expect our applicants, as seniors in high school, to know precisely what they want to major in or what they plan to do with the rest of their lives. Learning how to make such choices wisely is what Dickinson's four-year liberal arts education is all about.

Because colleges are different from each other, we believe that it is very important for prospective students to visit Dickinson in order to acquire an impression of our philosophy of education, sense of community, and people. A personal interview is seen as an opportunity for the prospective student to gain information about the Dickinson community and insight into it. Rarely is the interview used as a screening device in the selection process.

The policy of the College is to enroll a freshman class by selecting the most qualified candidates in its applicant pool. Dickinson College is an intellectual and social community which values justice, free inquiry, diversity, and equal opportunity. It is a fundamental policy of the College to respect pluralism and to promote tolerance, civility, and mutual understanding within its community. The College does not discriminate on such bases as race, color, sex, political and religious beliefs, marital status, age, sexual orientation, national and ethnic origins, veteran's status, or disability.

Dickinson is a member of the National Association for College Admission Counseling and subscribes to its Statement of Principles of Good Practice.

### Freshman Admission Requirements

A completed application form, including the secondary school report form to be completed by the guidance counselor, college adviser, headmaster, or principal, must be sent to the admissions office by the appropriate deadline (see chart on page 17). A non-refundable \$35 application fee is required at the time the application is submitted.

The Minimum Requirement for Entrance is the satisfactory completion of a secondary school program of at least 16 units, including four units of English, two (preferably three) units of one foreign language, three units of natural science, two units of social science, and three units of college preparatory mathematics. The remaining units should be within these academic areas. Most applicants offer more than the minimal requirements.

## Standardized Test Requirements

Submission of results from the Scholastic Assessment Test (SAT I) or the American College Test (ACT) is optional.

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SAT II Subject Test scores are not required for admission to Dickinson. If students wish to satisfy a prerequisite requirement or place into a higher level course (such as foreign language), they should plan to take a subject test or Advanced Placement Test. On the basis of this testing or in some cases additional testing during orientation, the student will then be placed at the appropriate course level. Those students interested in majoring in the sciences or in math are encouraged to take the Math Level IC or IIC College Board Subject Test in addition to other subject tests.

Subject test scores submitted prior to the evaluation of a person's application may support the application in cases where strong achievement potential is suggested, but in no case will these test results adversely affect the final decision on the application.

## Foreign Student Admission

Dickinson College encourages those foreign students to apply for admission who have successfully completed their secondary school requirements and whose knowledge of the English language (as indicated by their scores on the TOEFL examination—the Test of English as a Foreign Language, or the ELPT—the English Language Proficiency Test) is of sufficient quality to demonstrate capability in pursuing a collegiate program. Most accepted foreign students have a minimum score of 600 on the TOEFL or ELPT.

The College maintains a small foreign student financial aid budget to assist foreign students who wish to study as four-year degree candidates. In most cases, if a prospective student and his/her family are not able to cover the full costs of attending Dickinson, we must discourage the person's application.

Dickinson also utilizes the limited foreign student financial aid budget to assist those students who will be studying at the College as one-year non-degree guest students. One-year non-degree guest students often apply to Dickinson through agencies such as the Institute of International Education (IIE).

## Advanced Credit

Advanced Placement Program A student who achieves a score of 4 or 5 on a College Board Advanced Placement Test will be granted *credit* for college work in the appropriate department and will receive *placement* at the discretion of the department.

A student who achieves a score of 3 on the Advanced Placement Test may receive, at the discretion of the appropriate department, *credit* and/or *placement*. Credit granted in accordance with the above statements of policy will satisfy the corresponding graduation or distribution requirements. In addition, such course credit will normally satisfy a prerequisite requirement in that department for advanced work. The repetition of a course previously received as a credit in transfer or as a placement credit will result in the loss of credit for that course.

Other Credit Incoming freshmen should contact the registrar regarding the transferability of completed or proposed college credit. College-level coursework (other than A.P.) taken while in high school will be evaluated as follows. All eligible coursework must parallel that offered at Dickinson and be passed with a letter grade of "C" or better (2.00 on a 4.00 scale). If the classes were taught by high school faculty (even with college appointment), and/or the courses were not part of the sponsoring college's regular offerings available to students enrolled for a degree program, they will not be accepted for credit toward a Dickinson degree.

International Baccalaureate Diploma Course Credit Students who have received the International Baccalaureate diploma will be granted general college credit for up to two higher level IB courses in which they achieve grades of 5 or better. Placement and credit in the appropriate departments will be granted at the discretion of the departments.

Credit granted in accordance with the above statements of policy will satisfy the corresponding graduation or distribution requirements. In addition, such course credit will normally serve as the prerequisite to advanced work in the department.

#### Interview

A visit to the campus for an interview or group information session is helpful to prospective students in gaining a clearer understanding of life and study at Dickinson.

Personal interviews may be scheduled with an admissions staff representative between 9:00 a.m. and 3:15 p.m. Monday through Friday from mid-March through December.

During January, personal interviews may be sched-

uled on Monday, Wednesday, or Friday, and in *February* on Monday only. In *March* personal interviews are not available until mid-month.

Students are welcome to attend group information sessions which are conducted by professional staff members on Saturday at 9:00 a.m. and 10:30 a.m., September through April (except January), and on Monday, Wednesday, and Friday at 1:30 p.m., September through April. The admissions office is closed for some legal holidays and college vacations.

Students and their families should arrive no later than 15 minutes before the scheduled start of the group information session so that the session may begin promptly.

All appointments should be made well in advance of a planned visit by writing the admissions office or calling 717-245-1231.

### Early Decision Plan

The College actively encourages early decision applications from students for whom Dickinson is clearly their first-choice college.

Students may apply for early decision from November 1 until February 1. Decisions will be made on a rolling basis as applications become complete. More details will be found on the chart on page 17.

Early decision is a service to realistic candidates because:

- 1. Preference in the admissions process is given to early decision candidates if they are qualified.
- The candidates learn early in their college planning if they have been admitted to the college of their choice.
- 3. Dickinson has had a strong history of meeting the full need of accepted candidates who demonstrate financial need. All accepted early decision candidates who file timely financial aid applications are *guaranteed* financial aid in the amount of their demonstrated financial need. (See page 28 and the financial aid brochure for filing information.)
- The Dickinson Grant component of the financial aid package is guaranteed for all four years of the undergraduate career. (See details of the Dickinson Grant Guarantee Plan following.)
- All applicants not accepted will be reconsidered automatically on an equal basis with the regular applicants for admission and ultimately may be accepted for admission.

In addition to fulfilling the regular requirements for admission, early decision candidates *must* submit the Early Decision Agreement Form which is enclosed with the application packet.

The obligation of the accepted early decision candidate to Dickinson is to withdraw all other college applications and to submit the \$200 non-refundable enrollment deposit which is applied to the first semester tuition charges.

Early decision candidates seeking financial assistance should correspond directly with either the Office of Admissions or the Office of Financial Aid. (See page 28.)

### The Dickinson Grant Guarantee Plan

Students who are not quite ready to commit to the Early Decision Plan will want to consider an option which was new for 1996-97. The Dickinson Grant Guarantee Plan provides an early response to the application for admission and a guaranteed Dickinson Grant for four years. Notice that the deadline for filing the applications for admission and financial aid (PROFILE) are early—December 1.

The amount of the Dickinson Grant is guaranteed at least to remain constant for four years. It will not decrease in light of changing family financial characteristics. Any change can only be upward, including an annual increase to meet the percentage increase of college costs. Details are outlined on page 28 and the financial aid brochure.

### Early Admission

A student who plans to leave secondary school prior to graduation, often a year in advance, is considered to be an early admission candidate. Such students usually have performed very well academically and have exhausted the highest level course offerings of their schools.

Applications for early admission are reviewed on an individual basis taking into consideration maturity and readiness to participate in a residential college as well as academic ability. An early admission applicant is required to have a personal interview and must have the written recommendation and approval of the secondary school counselor.

### **Deferred Admission**

Some accepted students may wish to defer the start of their college experience until they have pursued an alternate activity for a year or two. A written request which explains why the student wishes to defer admission and also which describes the alternate activity is required. Normally, experiences which enhance a student's educational background such as overseas travel, work, or study are approved. All deferral requests are reviewed by the admissions staff on an individual basis.

## Common Application

Dickinson College, along with a select number of colleges in the United States, is a member of the Common Application. A student who completes the Common Application may submit that form to any participating college. The Common Application may be submitted in lieu of the regular Dickinson application and will be treated in the same way as the Dickinson form. For further information regarding the Common Application, prospective applicants are advised to check with their guidance counselors.

Admission Category	Application Deadline	Admission Decision Notification	Enrollment Deposit Deadline	
		FALL SEMESTE	R	
Freshman, Early Decision	February 1	Between November 15 and February 15	Within 14 days of the date of acceptance	
Freshman, Dickinson Grant Guarantee	December 1	Rolling notification as applications are completed	The Candidates Reply Date of May 1	
Freshman, Regular Decision	February 15	Between March 15 and March 30	The Candidates Reply Date of May 1	
Transfer June 1		Rolling notification as applications are completed	By May 1 if notification of acceptance is prior to April 20. After April 20, the registration fee deadline is 10 days after acceptance. Accepted students who are financial aid applicants must submit the \$200 fee by May 1 or within 10 days of the financial aid notification if such notification is after April 20.	
		SPRING SEMEST	ER	
Transfer	December 1	Rolling notification as applications are completed	Within 10 days of date of notification of admission or within 10 days after notification of financial aid status if the accepted student is a financial aid candidate.	

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## Transfer Admission Requirements

Dickinson College welcomes qualified applicants with previous academic work at other accredited college-level institutions. An applicant normally will be considered for transfer admission if the person has been enrolled elsewhere as a degree candidate for the equivalent of at least two semesters prior to the term of desired enrollment at Dickinson. As a matter of definition, a candidate will be considered for transfer admission if he or she enrolled at another institution as a full-time, degree-seeking student.

The primary factors in the admission of transfers, in addition to those required of freshman applicants, are the college transcript, the reasons for transfer, and evidence of good academic and non-academic standing (as indicated by the Dean's Report Form or similar official statement).

Previous academic work which has been satisfactorily completed with a grade of C or better (2.00 or above on a 4.00 scale) in a program of study that reasonably parallels the curriculum of Dickinson College will be evaluated for credit. Normally, the course requirements for graduation (34 courses) will be reduced proportionately for every academic year of full-time study at other accredited institutions. Parttime course work, summer study, and unusual circumstances will be evaluated on an individual basis.

Final determination of credit and the satisfaction of distribution and language requirements will be made by the registrar. Among the academic regulations applicable to all students and of particular note to transfer applicants is the graduation requirement that at least 17 courses be taken on campus, the last 12 of which must be taken while the student is matriculated with an approved major field of concentration.

## Enrollment Deposit

In order to assure his or her enrollment at Dickinson College, an accepted candidate is required to submit a non-refundable \$200 enrollment deposit by the appropriate deadline. (See chart on page 17.) The enrollment deposit is applied automatically toward the first semester tuition charges.

## Alumni Admissions Program

The Alumni Admissions Program of Dickinson College is composed of a group of alumni who are interested in providing a service to the students, parents, and schools of their home areas. The Alumni Admissions Program committees are most willing to provide accurate, up-to-date information about the College to all persons interested in learning more about the academic, cultural, extracurricular, and social programs available at Dickinson.

If you desire further and more specific information about the College, please feel free to contact the Alumni Admissions Program committee representative living in your home area. Please note that the information listed below is correct as of April 1, 1996. If you have trouble contacting our representatives, please call the Admissions Office (717) 245-1231 for assistance.

#### Arizona

Phoenix

Joseph T. Clees, Esq. '81, 1630 W. Vernon Ave., Phoenix, AZ 85007; H. (602) 495-9029, O. (602) 229-5205

#### California

Los Angeles

Mrs. Paulette G. Katzenbach '68, 153 S. Rockingham Avenue, Los Angeles, CA 90049; H. (310) 395-8073

#### Redlands

Steve Maltzman '77, 215 San Rafael Street, Redlands, CA 92373; H. (909) 798-7233, O. (909) 798-7199

#### Sacramento

Kelly Waser Sackheim '83, 5096 Cocoa Palm Way, Fair Oaks, CA 95628; H. (916) 962-2271, O. (916) 737-3000

#### San Diego

Sarah Dantzer DeHart '85, 13144 DuFresne Place, San Diego, CA 92129; H. (619) 484-4390, O. (619) 587-6997

#### Santa Barbara/Ventura

Michael R. Good '80, 3171 Manley Drive, Lompoc, CA 93436; H. (805) 733-3094, O. (805) 922-4523

#### Colorado

Denver

Ronald H. Jacobs '67, 1701 Green Oaks Drive, Greenwood Village, CO 80121; H. (303) 347-9115, O. (303) 347-2675

#### Connecticut

Hartford

John A. Bierly, DMD '66, 25 Borough Drive, West Hartford, CT 06117; H. (203) 521-8718, O. (203) 658-5552

#### Southern Connecticut

Gregory S.C. Chann, DMD '77, 400 Danbury Road, Wilton, CT 06897; H. (203) 762-3711, O. (203) 762-8405

#### Delaware

Southern Delaware

Laura and Jack Morris '76 & '74, 1 Lilly Pad Drive, Overbrook Shores, Milton, DE 19968; H. (302) 645-5281

#### Wilmington

Alison Whitmer Tumas, Esq. '81, P.O. Box 2359, Wilmington, DE 19899; H. (302) 239-9838

#### District of Columbia/Northern Virginia

John S. Taylor '76, 2619 Steeplechase Dr., Reston, VA 22091 H. (703) 860-4915

#### Florida

Gainesville

Patrice Flinchbaugh Boyes '78, PO Box 2127, Gainesville, FL 32602; H. (904) 372-2657, O. (904) 378-7026

#### Facksonville

Robert Yoder '87, 10684 Quail Ridge Drive, St. Augustine, FL 32095; H. (904) 823-1893, O. (904) 829-5535

#### Southern Florida

Steve Kreisberg '62, 10325 SW 90th Street, Miami, FL 33176; H. (305) 595-5004, O. (305) 442-4333

#### Georgia

Atlanta

Lee Anne Atkins Mangone '89, 1038 Ashbury Dr., Decatur, GA 30030; H. (404) 284-1846, O. (404) 371-3030

#### Illinois

Chicago

Ann M. Boehmcke '85, 643 West Briar Place, Chicago, IL 60657; H. (312) 281-9232, O. (312) 648-4909

#### Kansas

Kathy Ostervold Baker, '91, 11224 Nieman Rd., Apt. 302, Overland Park, KS 66210; H. (913) 661-1712, O. (913) 663-1251

#### Louisiana

New Orleans

Betsy Strachan '82, 2916 Calhoun St., New Orleans, LA 70118; H. (504) 861-0037, O. (504) 595-6433

#### Maryland

Baltimore

Gregory and Robin Zimmerman '83, 8512 Timber Valley Ct., Ellicott City, MD 21043; H. (410) 465-0799, O. (410) 992-6059 (his)

#### Cumberland

Cherie Reeder Snyder '72, 87 Broadway, Frostburg, MD 21532; H. (301) 689-0195 O. (301) 724-7700

#### Frederick

Ms. Lori E. Goldman '81, 4534 Mountville Road, Frederick, MD 21701; H. (301) 695-8688, O. (301) 208-2959

#### Massachusetts

Boston

Mark S. Granger, Esq. '71, 250 Summer Street, Boston, MA 02210; H. (617) 327-8333, O. (617) 439-7518

#### Michigan

Detroit/Flint

Curtis S. Yun '84, 46588 Swanmere Drive, Canton, MI 48187; H. (313) 454-9213, O. (313) 248-3103

#### Minnesota

Minneapolis

Gretchen Dockter Runyan '91, 3519 Emerson Ave., South B, Minneapolis, MN 55408; H. (612)823-8559. O. (612) 343-0510

#### **New Hampshire**

Susan Leidy '73, 74 Centre Street, Concord, NH 03301; H. (603) 226-2278, O. (603) 669-6144

#### **New Jersey**

Central

Edmund A. Abramovitz '72, 280 Bolton Road, East Windsor, NJ 08520-5504; H. (609) 443-3573, O. (609) 448-5700

Tracy Woodruff Wisniewski '82, 905 Davis Avenue, Pt. Pleasant, NJ 08742; H. (908) 899-3567, O. (908) 949-5785

#### Northern

Mark and Harriet Lehman '71 & '72, 645 Shadowlawn Drive, Westfield, NJ 07090; H. (908) 232-3216, O. (201) 347-7000 (his)

#### Southern

Stacey Wittmeyer Balderson '86, 1115 Greenmount Rd., Haddonfield, NJ 08033; H. (609) 354-2252, O. (302) 773-2299

Leon Rose '83, 127 Lucerne Blvd., Cherry Hill, NJ 08003; H. (609) 424-9608 O. (609) 662-0700

#### New York

Albany

Susan L. Dague '81, 8 Indian Maiden Pass, Box 103, Altamont, NY 12009; H. (518) 861-8341, O. (518) 869-6379

#### Long Island

Barry Warren '65, 206 High St., Port Jefferson, NY 11777; O. (516) 265-0010

#### New York City

Dorothy Kropf '87, Credit Suisse Private Banking, 12 E. 49th Street, New York, NY 10017-1028; O. (212) 238-5107

#### Rochester

Beth Trevvett '80, 134 Kennedy Street, Canandaigua, NY 14424; H. (716) 396-2651, O. (716) 292-2248

#### Utica

Rev. Robert J. Thomas '40, P.O. Box 57, Sherrill, NY 13461-0057; H. (315) 363-5193, O. (315) 599-8842

#### Westchester/Rockland

Mark D. Teich '76, 125 Sterling Road, Harrison, NY 10528; H. (914) 967-2531, O. (212) 673-6700

#### North Carolina

Charlotte

Robert Reichley '82, 3817 Selwyn Farms Lane, Charlotte, NC 28209; H. (704) 527-8826

#### Durham

Phyllis Golden Andrews '75, 22 Oak Drive, Durham, NC 27707; H. (919) 493-8544

#### Ohio

Cincinnati

Gregory M. Morris '88, 6467 Kenview Ln., Cincinnati, OH 45243; H. (513) 792-0064, O. (513) 733-1611

#### Cleveland

Ms. Jan T. Matz '81, 37805 Jordan Dr., Willoughby, OH 44094; H. (216) 953-4616, O. (216) 444-6089

#### Columbus

Jan Brittan '71, 330 Clinton Street, Apt. B, Columbus, OH 43202; H. (614) 261-9031

#### Toledo

R. Anthony Marcson '71, 131 Liberty Street, Bowling Green, OH 43402; H. (419) 352-7435, O. (419) 352-7588

#### Oregon

Salem

Robert M. Schiff '68, 556 Welcome Way SE, Salem, OR 97302; H. (503) 363-7851, O. (503) 378-7850

#### Pennsylvania

Central

Joseph P. Winberry, Jr., O.D., '79, 134 Lancaster Boulevard, Mechanicsburg, PA 17055; H. (717) 697-8490, O. (717) 737-6321

#### Indiana

Donald R. Marsh '59, 260 North 12th Street, Indiana, PA 15701; H. (412) 465-7767, O. (412) 465-5651

#### Lancaster

Matthew J. Creme, Jr. '77, 1454 Mission Road, Lancaster, PA 17601; H. (717) 397-1502, O. (717) 299-3726

#### Lehigh Valley

Ellen and David Wolff '82, 325 Dogwood Terrace, Easton, PA 18040; H. (610) 258-8059, O. (610) 258-9181 (his)

#### Lewistown

Dr. Linda S. Cline Mohler '71, 12 Fairview Place, Lewistown, PA 17044; H. (717) 248-2011, O. (717) 667-3956

#### Philadelphia

Christopher Cardarelli '86, 2403 Grant Ct., Jeffersonville, PA 19403; H. (610) 630-1780, O. (610) 655-3445

#### Pittsburgh

Andrea Allen Lehman '80, 5939 Elwood Street, Pittsburgh, PA 15232; H. (412) 361-7087, O. (412) 762-8419

#### Reading

Mrs. Camille Faust Stock '82, 18 Woodland Manor Drive, RD 2, Mohnton, PA 19540; H. (610) 775-0616

#### Stroudsburg

Mark L. Mench '91, 503 Walnut Grove, East Stroudsburg, PA 18301; H. (717) 476-7390

#### Sunbury

Thomas E. Boop, Esq. '71, 106 Market St., Box 470, Sunbury, PA 17801; H. (717) 286-7382, O. (717) 286-6701

#### Wilkes-Barre/Scranton

Donna M. Wench '82, 516 Exeter Avenue, West Pittston, PA 18643; H. (717) 883-7417

#### Rhode Island

#### Providence

Suzanne Costa '83, 11 Fireside Drive, Barrington, RI 02806; H. (401) 245-8134

#### South Carolina

North Central

Carole Holloway '75, 1248 Windfall Farm Lane, Hartsville, SC 29550; H. (803) 383-5989, O. (803) 393-9734

#### Tennessee

Memphis

Patricia Casserly Newberry '66, 3181 Country Squire Cove, Memphis, TN 38128; H. (901) 386-6272, O. (901) 761-6663

#### Nashville

Deborah A. Bick '85, 201 Jennings Street, Franklin, TN 37064; H. (615) 791-8047, O. (615) 486-5690

#### Texas

Dallas-Fort Worth

Sandy Quittman Walker '74, 4422 Shady Hill Drive, Dallas, TX 75229; H. (214) 350-1205

#### Houston

Joanne L. Poole '80, 5865 San Felipe #30, Houston, TX 77057; H. (713) 782-6889, O. (713) 953-3860

#### Utah

Salt Lake City

Susan Keiter Mellen '85, 2 Snow Star Lane, Sandy, UT 84092; H. (801) 553-0696

#### Virginia

Richmond

Charles F. Phillips III '83, 1904 Boardman Lane, Richmond VA 23233; H. (804) 270-9254, O. (804) 343-6434

#### Winchester

Warren E. DeArment '60, 131 Shirley Street, Winchester, VA 22601; H. (703) 667-0867; O. (703) 665-4587

#### Washington

Seattle

Dr. G. Dorsey Green '71, 1942 25 E., Seattle, WA 98112; H. (206) 323-7185, O. (206) 325-7435

#### West Virginia

Charleston

Edward P. Tiffey '87, Flaherty, Sensabaugh and Bonasso, 200 Capital Street, 4th Floor, Charleston, WV 25338; H. (304) 925-9402, O. (304) 345-0200

#### Wheeling

Reno F. DiOrio '63, Linsly School, Knox Lane, Wheeling, WV 26003; H. (304) 233-0901, O. (304) 233-3260

#### Wisconsin

Madison

Elvin E. Rawlins '73, 6705 Harvest Hill Rd., Madison, WI 53717; H. (608) 836-1653, O. (608) 256-7111

#### Wyoming

Casper

Mary Beth Wight Peden '71, 1808 S. Chestnut Street, Casper, WY 82601; H. (307) 235-3566, O. (307) 577-4400

As an institution of higher education, Dickinson College recognizes that breadth and depth in the pursuit of learning is enhanced by diversity within the student body, faculty, and administration. The quality of an education depends not only on the subject matter taught and the quality of the teaching, but also on the people with whom students share their learning experiences. Regular dialogue among students, teachers, and administrators, crucial to the teaching-learning process, is enhanced by diversity in a campus population. The more heterogeneous the participants—racially, culturally, economically, and otherwise—the wider is the range of ideas and perspectives.

A multicultural presence within a campus population makes possible a particularly significant kind of diversity. Students, faculty, and administrative staff who represent multicultural groups enable the college community to experience first hand the racial and ethnic variety of the society in which graduates of Dickinson will live and work. A multicultural presence helps all students better understand the problems and rewards of living with diverse groups. Familiarity with and increased sensitivity toward the cultural heritage, viewpoints, and values of diverse groups in society encourages growth in one's personal viewpoints and values.

The College, therefore, is strongly committed to recruiting students from historically minority groups. It seeks actively, through an Affirmative Action program, to appoint minority people and women to faculty, administrative, and staff positions. Several offices, groups, and organizations on campus work to promote diversity at the College. Among these are the Office of Multicultural Affairs which is a resource center for all students who wish to broaden their view of the world and/or enrich their cultural experiences; Allies, a group of faculty, administrators, and students concerned with issues of sexual orientation which provides resources for gay, lesbian, and bisexual members of the Dickinson community and general campus programming on these issues; and a presidentiallyappointed Commission on Multicultural Affairs which seeks to encourage a climate favorable to diversity on campus. This climate constitutes an academic, cultural, and social environment celebrating a pluralism of ideas and values and manners of living.

## Statement on Physical and Learning Disabilities

Dickinson College is firmly committed to the principle of reasonable accommodation for disabled students throughout all aspects of the college community. Dickinson fully supports the intent of the Rehabilitation Act of 1973, Section 504, and the Americans with Disabilities Act of 1990. The secondary school student with a physical or learning disability who is thinking about applying to Dickinson College has a right and a responsibility to know how far the facilities and the curriculum of the College can reasonably accommodate his or her individual needs.

All prospective applicants, including those with physical and learning disabilities, are strongly encouraged to study the College's distribution requirements from which no Dickinson students are exempted. A campus visit is recommended for all prospective students, especially those with physical and learning disabilities. Prospective students needing accommodation during a campus visit are encouraged to inform the College of their needs before arriving for their visit.

Reasonable adjustments to classroom location, course scheduling, and other arrangements are made according to individual need rather than set formula. Dickinson's colonial heritage and the age of some historical buildings do not militate so much as they might against the accommodation of students with physical disabilities. Recent renovations and new construction on campus have been undertaken with an eye to the needs of the disabled. Many classrooms and residence halls are accessible to students in wheelchairs and, where progress is incomplete to date, the College will adapt to individual needs as far as facilities and curriculum will allow. Modifications to courses can include extended time for testing, taped texts, and note-taking assistance. Peer tutoring for many entry-level courses is available without charge.

In supporting the educational aspirations of its disabled students, Dickinson operates on a sincere belief that careful choice within its system is better for any student than exemption. Our curriculum offers a wide variety of ways to satisfy most requirements and makes it unnecessary for students to expect exemption from the College's distribution requirements on the basis of disability. In the various laboratory sciences,

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for example, one may draw upon a wide range of mathematical requirements, and nonlaboratory sciences require no manual skills. The Department of Physical Education offers a panoply of activities, both vigorous and mild, that accommodate all needs. For all students individualized counseling, academic and personal, is available from the first day on campus through graduation. Dickinson students with physical and learning disabilities are encouraged to meet with the Director of Disabled Student Services to discuss their needs.

### Dickinson Guest Student Program

Dickinson College welcomes qualified applicants who wish to study on a full-time, nondegree status for either one or two successive terms "in absentia" from their present colleges. This program is specifically designed for those students who wish to participate in the high-quality academic and cocurricular life of a small college community.

Application deadlines are December 15 for spring term admission consideration and August 1 for fall term admission consideration. Applicants are notified of the admission decisions on their applications on a rolling basis as the applications become complete. A \$200 non-refundable deposit is required from accepted applicants and is applied toward the first semester tuition.

Under special circumstances, qualified guest students may study on a part-time basis for a semester or a year. These students are placed in regular Dickinson courses on a space available basis.

For further details regarding the Guest Student Program, please write to the dean of admissions.

## Continuing Education

The Office of Continuing Education serves adults in the community who wish to take advantage of the many activities at the College that will enrich their lives and further their education, both within regular course work and through other events and special programs. Adults interested in regular study at the College on a part-time basis should apply through this office. Normally, students in continuing education will have been away from the formal education process for a year. Registration for these students is limit-

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ed to two courses in the regular curriculum each semester.

Adults may enroll in regular classes either on a credit or audit basis. Auditors attend class, read the assignments, but submit no written work, do not take examinations and receive no academic credit. They are not seeking a degree and may continue in the program indefinitely.

Adults planning to matriculate and to earn a Dickinson degree are encouraged to begin their college career in the continuing education track. They may take four courses at a special lowered tuition rate before their academic record is evaluated to determine their eligibility for regular admission. If they are admitted to degree status, they may continue to work on a part-time basis if they so desire.

Inquiries about study through continuing education should be made by calling 717-245-1384.

## High School Enrichment Program

Upon the recommendation of their high school guidance counselors, promising high school students may elect to augment their high school program by enrolling in up to two courses per semester at Dickinson. Information about course offerings and assistance is provided by calling 717-245-1384.

## The Consortium Exchange Program

Dickinson, Franklin and Marshall, and Gettysburg form the Central Pennsylvania Consortium. (See Off-Campus Study in the United States, page 184.)

## Changes from Nondegree to Matriculated Status

A nondegree student who desires to become a degree candidate must receive the approval of the Committee on Admissions and Financial Aid. In seeking such approval, the student must submit all transfer credit he or she plans to apply toward the Dickinson degree. In general, a student must meet all the requirements for graduation in effect at the time of acceptance, including being accepted as a major by some department prior to completing 22 courses. Failure to be accepted as a major means required withdrawal from the College without the privilege of read-

mission. In addition, a student must meet the same requirement as a transfer student, i.e., the student must complete 17 courses on campus, the last 12 of which must be taken while the student is matriculated with an approved major field of concentration.

#### Readmission

Any formerly matriculated student who wishes to re-enroll must file an application for readmission. Such applications should be filed with the registrar prior to April 15 for the fall semester, and prior to November 15 for the spring semester. Favorable action on such applications may be dependent upon consultation with the registrar and/or the director of counseling services depending upon the nature of the required withdrawal. Students applying for readmission should be aware that their acceptance is also conditional upon the availability of space in the College.

A student who is absent from the College at least three years, and who is readmitted and successfully completes the equivalent of at least two semesters of work on campus, may petition the College Committee on Academic Standards to have course credits toward graduation and cumulative grade averages based only on work accomplished after the second matriculation. "Successful completion" will mean the attainment of at least a 2.0 average, or a higher probationary average, as stipulated by the committee.

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## **Financial** Information

### Expenses

The costs of an education are of concern to students, their families, and to colleges. Dickinson has been pleased to hold the charge made to a studenttuition, room, board and fees-about 20 percent below the actual expense of that student's education. Gifts, grants, alumni contributions, bequests, and income from summer conferences help Dickinson to reduce the costs of education for every student.

Financial aid is available to many students. The College is aggressive in seeking financial aid for those who have valid needs. Financial aid comes from endowment and other college sources and from outside agencies. Further, because certain federal and state programs are broadly available, it is recommended that all prospective students and their families read the section dealing with financial aid.

### Fee Structure

All basic expenses due to Dickinson fall into three categories: tuition, a resident fee, and a Student Senate fee. Books and supplies are additional, as are certain other expenses such as private music tuition.

The tuition fee applies to students enrolled in three or more courses per semester; students enrolled in fewer than three courses are billed on a course basis.

The resident fee includes room and board.

The Student Senate fee supports a wide range of social and cultural activities administered by student officers elected by the student body.

## Payment Procedures and Regulations

Pre-Registration Deposit A pre-registration deposit will be charged prior to each semester to reserve enrollment in college classes and assignment of dormitory space. This deposit of \$300 per semester is credited toward the semester charges and is nonrefundable once the student has preregistered.

Making Payment An itemized statement of fees and charges is mailed approximately seven weeks prior to the beginning of each semester. Payment is due and must be paid in full 14 days prior to registration each semester. Accounts not settled by the due date could result in delayed registration and will be subject to a late payment fee of \$50 and a one and one-quarter percent per month interest charge on the unpaid balance. A transcript of a student's records will not be released if any of the student's accounts are in arrears, whether or not the student is currently enrolled. Included are accounts for education loans issued by, through or upon approval of the College.

Payment Plans Persons wishing planned payments should consider the option of Tuition Management Systems, the Knight College Resource Group, CICU, or the Academic Management Services Plan. Information on these plans is available from the Dickinson Student Accounts Office. Applications should be completed at least six weeks before the school year begins to assure the availability of funds for the fall semester.

A variety of other financing options is available to those who wish to spread the costs of a student's career at Dickinson over more than four years. Through PLUS (Parent Loan for Undergraduate Students), parents may borrow up to the total costs for the year less any other financial aid. Applications for this federally insured, low interest loan are available from local lending institutions. The PLUS program should be investigated thoroughly before any other plan is initiated.

Dickinson College has created a two part Flexible Financing System which families may use to develop monthly payment plans. Plan A provides as much as \$4,000 per year (\$16,000 maximum) at a low fixed interest rate and requires repaying only the interest on the outstanding principal while the student is at Dickinson. Plan B provides up to \$10,000 per year (\$40,000 maximum) with payment extended over as many as 13 years. The variable interest rate is established each year at one point above the prime rate.

The two financing plans in Dickinson's Flexible Financing System make funds available to families without a computation of financial need. They are particularly attractive to parents of students who do not qualify for need-based financial aid. Parents of students who have need-based aid also can use the programs to put the family's portion of college costs



into a monthly budgeting system.

Additional information about the Flexible Financing System is available from the director of financial aid.

Dickinson College Refund Policy The College has adopted for all students the refund policies prescribed by the U.S. Department of Education for students receiving Federal financial aid. If a student withdraws from the College on or before the first day of classes, all money paid by or on behalf of the student, with the exception of the pre-registration/enrollment deposit, will be fully refunded. If the student is a recipient of financial aid, all financial aid programs will be fully refunded as well.

Students withdrawing during their first semester of attendance at Dickinson will receive a prorated refund for tuition, fees, room and board, less an administrative fee of \$100 and any unpaid charges, according to the following schedule:

During week one	90%
During week two and three	80%
During week four	70%
During week five and six	60%
During week seven	50%
During week eight and nine	40%

All other students, will receive a refund of tuition, fees, room and board, less an administrative fee of \$100, according to the following schedule:

During weeks one and two	90%
During weeks three and four	50%
During weeks five through eight	25%

The U.S. Department of Education requires that, for any student receiving federal financial aid, the federal programs be refunded IN FULL in a prescribed order prior to any refund being issued to the student. State Grant programs have varying regulations concerning refunds, but most will require at least a partial refund of the State Grant. If the student has received a Dickinson Grant, a pro-rated portion of the student's refund also will be repaid to the Dickinson Grant Program. This will reduce, or in many cases eliminate, the amount of the refund the student otherwise would receive. Detailed examples are available from the Financial Aid Office.

If unpaid charges remain on the student's account, these will be deducted from any refund payable to the student. If unpaid charges remain after the student's refund has been reduced to zero, these charges will be billed to the student and/or family.

### Financial Aid

Dickinson continues to seek new ways to help families and students manage the costs of education. The College's endowment includes specially earmarked

Full-time Students	Per Semester	Per Year
(Taking 3 or More Courses)		
Comprehensive Fee	\$10,300.00	\$20,600.00
Room	1,490.00	2,980.00
Board	1,340.00	2,680.00
TOTAL FEES	\$13,130.00	\$26,260.00
Student Senate Activities Fee		150.00

(1 or 2 courses per semester)	
Per course charge, non-matriculant	\$2,760.00
Per course charge, matriculant	3,420.00
+ Student Senate Activities Fee,	
per course for matriculants	26.00
Audit charge, per course	1,340.00
Continuing Education, per course	1,010.00
Continuing Education Audit,	
per course	370.00

Other Fees	
Application (incoming students)	\$ 35.00
Applied Music: 1 hour/week for	
semester	760.00
1/2 hour/week for	
semester	380.00
Late Payment Charge: 1-1/2% per mo	onth
on amount ur	npaid
5-day luncheon plan	
Fall Semester	530.00
Spring Semester	540.00
ROTC Activities Fee, per year	40.00
Transcript Records: one time fee	
for incoming students	25.00

Family Income	Number of Admitted Applicants Who Applied For Aid	Number Determined To Have Need	Number Offered Aid	% of Needy Students Offered Aid	Total Aid Available to Meet Need	Average Total Award (All Sources)	Range of Total Award	Average Grant Award (All Sources
\$ 0-\$19,999	88	88	87	98.86	\$1,667,080	19,227	\$2,625-25,615	\$14,173
20,000- 39,999	188	183	183	100	3,686,730	20,146	3,925-25,490	14,830
40,000- 59,999	271	270	270	100	4,875,180	18,056	3,925-24,865	13,270
60,000-79,999	255	249	249	100	3,405,977	13,679	2,000-22,475	9,657
80,000-99,999	181	163	163	100	1,673,745	10,268	930-19,925	6,626
100,000-119,999	107	79	79	100	710,670	8,996	1,240-23,275	5,470
120,000- 139,999	46	22	22	100	169,250	7,693	2,625-17,425	4,314
140,000 and Above	59	19	19	100	116,941	6,155	1,400-15,095	3,143
TOTALS	1,195	1,073	1,072	99.91	\$16,315,573	\$15,219	\$ 930-25,615	\$ 10,822

funds for financial assistance; some general endowment funds are also set aside for this purpose. Each year, federal and state funds are made available for assignment by the College on behalf of students. In some cases, gifts and grants from corporations and foundations provide help. In addition, some families find that employers and other near-to-home sources can provide assistance.

The decision to award financial aid is based solely upon need; the College does not offer "incentive scholarships" designed specially to attract students who do not need financial aid. A "package" of financial aid is developed for each recipient, and may include direct grants, loans for students, loans for parents, or on-campus work opportunities. It is interesting to note:

—fully 55 percent of last year's full-time students received grants from Dickinson's own endowment.

-65 percent of last year's students received some form of financial aid from all sources combined.

In recent years, the aggregate need of the student body has exceeded the amount of available need-based financial aid. Therefore, parent loan programs have been used in the packages of some students to fill the gap between computed need and the aid available to meet that need. Also, when it appears that it will be an insurmountable hardship for parents to borrow funds, some applicants have been denied aid entirely. Of the

#### FINANCIAL AID CALENDAR CONSIDERATIONS

Suggested application filing dates and subsequent award notification schedules are outlined below for applicants interested in the several admissions modes:

ADMISSIONS CATEGORY	PROFILE AND FAFSA FILING SCHEDULE	NOTIFICATION SCHEDULE FOR ACCEPTED STUDENTS	ACCEPTED STUDENT RESPONSE SCHEDULE
Early Decision*	File PROFILE* as early as possible, but no later than February 1 File FAFSA after January 1 but before February 15.	Official awards sent soon after PROFILE material is received and acceptance letter is mailed from Admissions	Pay deposit of \$200 within two weeks of the date of acceptance
Dickinson Grant Guarantee Plan	File PROFILE* by December 1 and FAFSA between January 1 and February 15	Soon after PROFILE material is received and acceptance letter is mailed from Admissions	Pay deposit of \$200 by May 1 to reserve place in class
Regular	File PROFILE* & FAFSA by February 15	Soon after letter of acceptance is mailed from Admissions in late March through April	Pay deposit of \$200 by May 1 to reserve place in class
Transfers	File PROFILE* & FAFSA at the same time as the application for admission	Official awards sent soon after PROFILE & FAFSA material is received and acceptance letter is mailed from Admissions	Pay deposit of \$200 by May 1 or within 10 days of financial aid notification if such notification is after April 20

Note: Financial aid information above applies only to U.S. citizens and/or permanent residents.

<sup>\*</sup>This date is for filing the PROFILE Application; the PROFILE Registration Form must be filed at least two weeks before this date.

accepted applicants for admission to the class of 1999, less than 1 percent of those who demonstrated a need for financial aid were not granted assistance. The table on page 27 shows average financial aid awards offered to a recent class of prospective students.

Students wishing to apply for Dickinson Grant assistance, as well as federal and state aid, should complete BOTH the Free Application for Federal Student Aid (FAFSA) and the PROFILE Application, a publication of the College Scholarship Service (CSS). The PROFILE Service begins with the filing of a Registration Form. This will trigger the production of a personalized PROFILE Application, which will be mailed to the student for completion. Both the FAFSA and the PROFILE Registration Form are available nationwide from high school guidance offices and college financial aid offices. Be sure to list Dickinson College as one of the colleges to receive the information from the forms.

Our CSS PROFILE Code Number is 2186; the code number for the FAFSA is 003253.

In some cases, the College may need additional information in order to determine eligibility for institutional grant assistance. In the case of divorced or separated parents, the **Divorced/Separated Parent's Statement** should be completed by the non-custodial parent. Families that own businesses or farms should complete the **Business/Farm Supplement**. Both forms are available from the College Financial Aid Office.

Eligibility for Dickinson Grant assistance will be determined using the College's own analysis of the family's need, which differs from the analysis done by the federal government.

Students must reapply for aid each year. Continuing students must file the Renewal FAFSA and the Renewal PROFILE by April 15; parent and student tax returns must be mailed to the Financial Aid Office by May 1. More detailed information will be provided to financial aid recipients before the midyear semester break each year.

## Types of Financial Aid

A financial aid recipient may be granted one or more forms of assistance. Students receiving grants are usually also given loans and campus employment as part of their "package." For more details, read the financial aid brochure. **Grants** Grants (outright gifts) may be made from the College's own endowment, from state or Federal sources, or from outside agency funds.

Campus employment Most students receiving assistance are offered campus employment of up to 12 hours per week in exchange for wages which help defray expenses. Campus jobs are provided using funds from the federal College Work-Study Program or in some cases from Dickinson's own funds.

Loans Several low interest, federally-insured loan programs are available to students who demonstrate financial need. The Stafford Loan, available from local banks or credit unions, and the Perkins Loan, available from the College, each feature a federal subsidy which means repayment does not begin until after the student finishes school. Deferments are available for graduate study and a variety of other reasons.

Financing Systems More and more families are looking to an array of financing systems to help make college costs more manageable by arranging for year-round, monthly payments and by extending college costs over more than the four years of the typical collegiate career. Additional information about financing systems is available from the financial aid office.

Summer employment Students are normally expected to obtain summer jobs and to apply those earnings toward the costs of education.

Outside Scholarships Any student receiving financial aid who also receives scholarships, loans, tuition remission, or support from a source other than the College, must report the additional aid to the Dickinson financial aid office. Such assistance can impact the student's eligibility for assistance from federal and institutional resources. The total amount of aid received by the student cannot exceed need as computed by federally approved methodology. The College will always reduce or eliminate self-help (loans or work) before reducing grant aid.

## Academic Program

# The Shape of the Curriculum

he Dickinson College baccalaureate degree is the result of a four-year educational journey. The landscape comprising that experience is what all Dickinsonians have in common, although each one of them travels through it along a distinctive pathway. Students need constantly to make specific and individual choices regarding courses, programs, and activities as they move through college, and so they each fashion a way uniquely their own. Yet they do so in aspiration with others, within a community of shared intellectual inquiry. This mutual journeying, not the separate roads chosen, is what is most important.

Students may elect either of two broad approaches to the curriculum: the Bachelor of Arts or the Bachelor of Science. General graduation requirements are the same in either case, but only students with a concentration in one of the natural or mathematical sciences may be a candidate for the Bachelor of Science.

Whatever Dickinson students finally decide to emphasize, they begin by exploring in a general way the full breadth of liberal learning as it is represented in the three fundamental branches of the academic curriculum. The humanities share a common interest in the meaning of human experience. They help us interpret ourselves and our world through artistic and conceptual self-expression, through critical reflection, and through a heightened sensitivity to the nuances of the human spirit. The social sciences seek to describe, analyze, and interpret the ways by which people interact within the societies they have created. They assist us in seeing the complex conditions that historically and currently have defined the possibilities for both human failure and achievement, for conflict, and for reconciliation. The natural and mathematical sciences are linked by their goal of understanding the character and the interdependencies of the natural order. They allow us to discern basic structures and regularities in the universe, to trace the past development of planet Earth and its living creatures, and to anticipate future changes.

Every educated citizen should be reasonably familiar with these three basic kinds of learning, but everyone should also study in some depth at least one disciplined approach to knowledge. Dickinson students, therefore, develop a concentration in a major. The arts and literatures provide 12 such concentrations within the humanities; in the social sciences there are six concentrations; the natural and mathematical sciences provide six as well. These 24 disciplinary majors represent the basic academic disciplines that outline the liberal arts. They are complemented by nine interdisciplinary majors and two interdisciplinary certification programs, as well as the secondary education certificate.

Courses are offered in two semesters, each including 14 weeks of classes plus a brief reading period followed by final examinations. The fall semester begins in early September and concludes prior to the holidays. Students have a reading period of a few days after the end of classes in which to take stock of their work for the semester and prepare for the final examinations and papers which are scheduled at special times during the subsequent week. Spring semester begins near the end of January and runs through mid-May, following a similar pattern. A summer term is also available for those who prefer the smaller classes and quieter pace it provides. During the summer, students usually take two courses at a time in either of two six-week sessions.

Students usually enroll in four courses at a time, although they frequently take five. Normally a course meets three times a week for 50 minutes or twice a week for 75 minutes; some upperclass seminars meet just once during the week for two and a half hours. Some natural and mathematical science courses meet in two-hour lecture and laboratory workshops several times a week or schedule advanced laboratories or field trips in single afternoon blocks. This variety in the weekly schedule provides class times suited to differing teaching methods and to the requirements of specific subjects. For example, brief but frequent meetings are often the best way to learn information, practice a skill, or discuss a series of related issues. Sometimes extended workshop sessions serve well the rhythms of a course that requires room to develop an idea or explore a problem or acquire a technique.

Freshman seminars, all foreign language classes, courses on writing, and most upperclass seminars have class enrollments of no more than 15 students. A typical introductory course enrolls 35 students, most intermediate-level courses have 25 to 30 students, and



300-level courses are usually no larger than 20 or 25. Some introductory science course lectures enroll classes of 50 to 75 students, with accompanying laboratories for these courses conducted in sections of 12 to 28; others using a "workshop" approach meet for two hours of integrated lecture and lab for 20 to 25 students, three times a week. Advanced science classes and labs are usually under 25. Independent studies and tutorial opportunities, internships, and honors provide students with a range of occasions for one-toone teaching and learning. Maximum class sizes are established in order to provide students with adequate opportunities to interact with their professors and with other students. As a result, students do not always gain access to their first choice of courses during a given registration period, and some majors are more difficult than others to initiate. Consistent with the College's commitment to overall balance, however, every effort is made to anticipate such problems and when necessary to open new course sections.

Professors evaluate student achievement by the traditional means of written comments on papers and exams as well as by assigning letter grades. They are also available to students for individual conferences, to answer questions or discuss complaints, and just to talk further about some important matter raised in

In all but the first semester, a student may enroll in one course on a pass/fail basis as one way to venture into new intellectual fields. A very few courses, and all internships, are taught on a mastery (credit/no credit) basis only.

In the middle of each semester a "roll call" is taken in each course, and indications of whether or not students' work is satisfactory at that point in the semester are reported to the students and their advisers. In this way, academic problems may be identified while they can still be resolved.

At the end of every term, final grades are reported to students by means of a grade report that also summarizes other information relevant to their progress toward graduation.

Almost all of Dickinson's students have enrolled in college immediately after finishing high school; 84 percent of them graduate from Dickinson four years later. Some transfer to other colleges, some accelerate, and some take longer than four years to earn their degree. A few students transfer each year to Dickinson from elsewhere. A small but highly motivated sprinkling of adults enroll in courses in order to complete a much-delayed baccalaureate or simply to enjoy afresh the challenges of liberal education. In 1995 Dickinson graduated 479 students. Since its founding 223 years ago, 21,748 graduates have walked down the stone steps of Old West to receive a Dickinson baccalaureate and to commence their roles as adults and citizens in a changing world.

## Requirements for the Degree

he following guidelines assist students in developing programs of study that introduce them to the special nature of inquiry in each of the three major divisions of learning-the humanities, the social sciences, and the natural and mathematical sciences-and which ensure their growth in a knowledge of other cultures, of the place of physical activity in their lives, and of studying one area of the curriculum in depth.

Students must meet the following general requirements. Except for courses they will apply to the major or minor, students may not use any course to meet simultaneously more than one general requirement. All students must pass 34 courses with a cumulative average of 2.0. A student must complete a minimum of 17 courses on campus. Twelve courses must be completed on campus after the student has matriculated and has an approved field of concentration. The last four courses or six of the last eight courses immediately preceding graduation must be taken on campus. To be considered "on campus" a student must be registered for a numbered course at Dickinson and must be physically on the Dickinson campus for this course work. Students must satisfactorily complete courses that fulfill the requirements for distribution, crosscultural studies, physical education, and the field of concentration.

1. Freshman seminars One of the courses each entering freshman must take during the fall semester is a seminar that addresses particular problems or topics growing out of the liberal arts curriculum and often drawing from more than one disciplinary perspective. These seminars serve to introduce freshmen to the intellectual life of the College by encouraging them to participate actively in small group discussions and by setting standards for their writing and research that will enable them to become full members of the academic community.

#### 2. Distribution courses

Division I Humanities (3 courses) Students must select one course from each of the following three

- a. One course in philosophy or religion; or Environmental Studies 111, Humanities 120 or Humanities 220.
- b. One literature course in Chinese, English, French, German, Greek, Italian, Japanese, Latin, Russian, or Spanish.
- c. One course from the following: history of art or classical archaeology; the history, theory, or art of music; or Dramatic Arts 101, 102, 103, or 104.

Division II Social Sciences (3 courses) Students should select three courses, each from a different area or department within the social sciences. Those areas or departments are American studies, anthropology, economics, education, history (or classical history), political science, psychology, and sociology.

Division III Natural and Mathematical Sciences (3 courses) Two of the three courses to be selected must be a two-semester laboratory sequence in one of the following: biology, chemistry, computer science, environmental science, geology, physical science or physics-astronomy. The third course must be chosen from a department in this division different from that of the two-course laboratory sequence and may be either another laboratory course, a non-laboratory course, or a course in mathematics, contemporary science, or history of science.

3. Cross-cultural studies To prepare students to be effective members of the interdependent world, the College requires the study of a foreign language through the intermediate level and the election of one course in comparative civilizations. The language study often complements work in other disciplines. The comparative civilization courses seek to deepen students' understanding of the diversity in cultures by introducing them to traditions other than those that have shaped the modern West.

Languages All students are required to demonstrate that they have completed work in a foreign language through the intermediate level. If the student's native tongue is not English, he or she may be excused from this requirement by the dean of the College, who will give written notification to



the Registrar's Office who will notify the student and the student's advisor.

If the student has studied a language for two or more years in a secondary school, the student may be excused from the language requirement on the basis of a sufficiently high score on the College Board SAT II foreign language subject test in the language, with the permission of the appropriate language department.

A student who is qualified by placement for enrollment at any given level, but who is unable to work effectively at that level, may (at any time within the first 30 calendar days of the semester) with the concurrence of the instructor and adviser drop back one level without penalty.

Dickinson language departments also offer language immersion programs for students completing their general language requirement. These programs allow students to augment their required foreign language study by spending a month in a country in which that language is spoken. Students will be expected to depend almost entirely upon the foreign language as their means of communication in order to increase their language proficiency and their motivation to use the language further. Immersion programs are offered in French, German, Italian, Russian, Classical Studies, and Spanish.

Comparative Civilizations Students must select one course in the comparative study of civilizations. Each semester such courses are listed in the preregistration booklet.

 Physical education activities Satisfactory completion of five half-semester blocks of physical education is required: a Truly Living Concepts course, a health-related fitness activity, an individual sport/activity, a team sport/activity, and an elective. Transfer students with junior standing with no physical education credit need to take only two semesters (four blocks) of physical education. Persons who enter Dickinson after completing at least two years of active military service will be given three activity units credit toward fulfilling the physical education requirement.

Every student must complete the physical education requirement unless excused in writing by the dean of the College. Students are expected to have completed the physical education requirement by the end of the first semester of their senior year.

5. Concentration Students should select a field of concentration from among those departments offering major fields of study (see The Shape of the Curriculum, page 30) or should, by working with a faculty committee, design their own major field of study (see Special Majors, page 174). Most majors consist of nine or 10 courses of academic work in the discipline. In addition to these courses, the department may, with the concurrence of the Committee on Academic Program, prescribe additional courses in related fields.

The major field of concentration is normally selected during the spring of the student's sophomore year. The departments determine the student's acceptance as a major upon the basis of stated criteria. The department assigns the accepted student to an adviser, using the student's preference as one of the bases for assignment. A student who is not accepted for a major field of concentration during the semester in which the 22nd course will be completed will be required to withdraw from the College.

The student may also elect a minor field of study which usually consists of six courses of academic work specified by the department offering the minor. If a student completes a minor in one or more fields of concentration, this fact will be noted on the permanent record.

If a student intends to major in more than one department, approval must be secured from each department. This student must develop a program in consultation with both departments, and therefore must be advised jointly by a member from each department and must secure approval of both advisers. The same course may be counted for more than one major except for courses under the self-developed major program.

Students who wish at any time to change a major must be accepted by the new department in accordance with normal procedures for declaring a major.

## Honors Upon Graduation

**Latin Honors** A student in any field who attains an average of at least 3.75 in the total program at Dickinson College shall be awarded the degree *summa cum laude*.

A student who attains an average of at least 3.50 but less than 3.75 in the total program at Dickinson College shall be awarded the degree *magna cum laude*.

A student who attains an average of at least 3.25 but less than 3.50 in the total program at Dickinson College shall be awarded the degree *cum laude*.

# Programs and Courses of Study

Boldface type indicates that a major is offered.

**American Studies** 

Anthropology

Archaeology

Astronomy

**Biology** 

Chemistry

Chinese

Classical Studies

Comparative Civilizations

Computer Science

**Dramatic Arts** 

**East Asian Studies** 

**Economics** 

Education

English

**Environmental Science** 

**Environmental Studies** 

Financial and Business Analysis

**Fine Arts** 

French and Italian

Geology

German

Greek

Hebrew

History

Humanities

Interdisciplinary Studies

**International Studies** 

Italian

**Italian Studies** 

Japanese

**Judaic Studies** 

Latin

Latin American Studies

**Mathematics** 

Mathematics and Computer Science

Military Science

Music

Philosophy

Physical Education

Physics and Astronomy

**Policy Studies** 

**Political Science** 

Portuguese

Psychology

Religion

Russian

Russian Area Studies

Science, Technology, and Culture

Sociology

Spanish and Portuguese

Women's Studies

# Courses of Instruction

hen two course numbers, followed by a single description, are separated by a comma, either course may be taken without the other, although the two are normally taken together as a one-year course.

When two course numbers, followed by a single description, are separated by a comma, and preceded by an asterisk, the first course may be taken without the second, although the two are normally taken together as a one-year course. The first course, however, is a prerequisite for the second.

### American Studies

revolt against the rigidity of traditional academic disciplines gave birth to the American Studies Movement in the 1930s. Since that time, scholars have been developing new techniques for the investigation of America, past and present. Americanists have examined their complex society from a variety of perspectives, employing a rich blend of theories on society, culture, and sociocultural change. The discipline recognizes that the pluralistic nature of American society and the complexity of contemporary problems demand an understanding of social institutions and cultural values. Such understanding may be pursued through self-critical analysis, through examinations of particular social systems and subcultures, and through cross-cultural analysis.

In cooperation with participating departments, the American studies department at Dickinson seeks to provide an innovative and coherent approach to the study of American culture. American studies students are expected to develop a broad comprehension of the American experience, to think systematically about the nature of social and cultural analysis, and to analyze a topic of their choice from different disciplinary perspectives. Each American studies student develops a unique program of study which is given coherence through the core courses and through careful planning and advising concerning the student's thematic concentration. Many American studies majors take advantage of off-campus programs like the Washington Semester and Dickinson's international programs which provide opportunities for students to develop comparative cultural perspectives.

Students usually decide to major or minor in American studies during or after taking American Studies 201. All interested students are urged to take introductory-level work in U.S. history, literature, anthropology, and sociology during freshman year. Nonmajors can receive social science distribution credit for American Studies 201 and may be admitted to the advanced courses by permission of the instructor.

American studies graduates have found jobs in social service areas, publishing, journalism, urban planning, teaching, government, counseling, business, and law. Others have gone on to graduate education in a variety of fields including American studies, historic preservation, history, law, religion, urban planning, business, and journalism. All have left Dickinson with an informed and critical understanding of the society of which they are a part.

#### Faculty

Lonna M. Malmsheimer, Professor of American Studies. Chair. Ph.D., University of Minnesota. Her research interests are interdisciplinary methods, photographs as documents, ethnography and sexuality in America. (On leave Spring 1997)

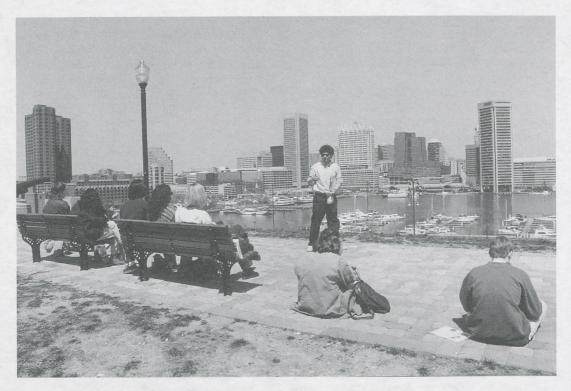
Amy E. Farrell, Assistant Professor of American Studies. Ph.D., University of Minnesota. Her research includes 20th century U.S. culture, mass media, feminist theory, and U.S. women's history.

John D. Bloom, Assistant Professor of American Studies. Ph.D., University of Minnesota. His research interests are popular culture, mass media, sports and American culture, urban U.S., and Native American Studies.

Sharon O'Brien, James Hope Caldwell Professor of American Culture and Professor of English and American Studies. Ph.D., Harvard University. Her teaching specialty is American Literature of the 19th and 20th centuries. Research interests include women writers, popular culture, feminist theory, and the relationship between literature and society. (On leave 1996-97)

Kim Lacy Rogers, Associate Professor of History. Ph.D., University of Minnesota. Her teaching interests center on recent U.S. history, urban America, and gender and family history. Research interests include biography and autobiography, oral history, and lifecourse analysis.

Daniel K. Richter, Associate Professor of History. Ph.D., Columbia University. Teaching areas include American intellectual and society history and American race relations. Much of his research deals with native American cultures.



Robert P. Winston, Professor of English. Ph.D., University of Wisconsin at Madison. He specializes in American literature before 1914, especially the development of the early American novel. His current research focuses on the relationships between popular literature and national cultures.

#### Contributing Faculty

Charles A. Barone, Associate Professor of Economics (On leave Fall 1996) Truman Bullard, Professor of Music Sharon Hirsh, Professor of Fine Arts Charles A. Jarvis, Professor of History Susan Rose, Associate Professor of Sociology Kenneth M. Rosen, Professor of English

#### Courses

200. Aspects of American Culture Selected topics in American studies at the introductory level. The subject matter will vary from year to year dependent upon the interests of faculty and the needs and interests of students.

201. Introduction to American Studies The culture concept and techniques of cultural analysis applied to selective aspects of the American experience. Through readings, lectures, discussions, and field work, students explore the significance of a variety of social documents including novels, buildings, films, oral testimony, historical and sociological studies, social criticism, and the artifacts of material culture.

250. Mass Media and American Culture This course examines the connections between mass media and U.S. culture. It focuses on the media in historical and contemporary context, exploring how media construct cultural meanings and the ways that different audiences interpret these meanings in multiple and often conflicting ways. It specifically looks for the construction of ideology within television, using the categories of ethnicity, class, and gender as the basis for analysis.

301. Topics in American Studies Selected topics in American studies at the intermediate level. Topics offered will vary from year to year, reflecting the interests of faculty and students as well as evolving concerns of the field, e.g. Mass Media and American Cul-

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ture, Gender in America, Social Mobility in America, Popular Culture, Native American Cultures, Religion and American Culture, Race and Racism in America, etc. *Prerequisite: 201 or permission of the instructor.* 

401. Research and Methods in American Studies An integrative seminar focusing on the achievements and problems of interdisciplinary study. Students examine the history and current literature of American studies, discuss relevant philosophic questions, and, in research projects, apply techniques of interdisciplinary study to a problem related to thematic concentration. Prerequisite: American studies major, minor, or permission of the instructor.

402. Seminar in American Studies: Selected Topics Topics chosen annually on the basis of student interest and scholarly concerns in the field. Such topics, explored through reading, discussion, field work, and research, include: American Lives; The Twenties; Social Criticism in America; Male and Female in America; Metaphors of American Experience; Myths, Fiction, and American Life; The American Artist and Society; Photographs and American Culture. Students should refer to the class schedule for the topic being offered in any given semester. *Prerequisite: permission of the instructor.* 

#### Major

Ten courses including

#### Requirement I (Four courses)

Core courses in American Studies 201, 301, 401, 402.

#### Requirement II (Three courses)

One upper-level course in both American literature and American history and one course from sociology or anthropology that emphasizes theories of culture and comparative cultural analysis or conceptions of social structure and sociological theory.

a. One semester course in American history chosen from the following: 281, Recent U.S. History; 349, American Intellectual and Social History; 350, American Intellectual and Social History. Other courses may be substituted by permission of the American studies adviser.

- b. One semester course in American literature chosen from the following: English 345, Women Writers; 348, Native American Novel; 358, Studies in Early American Literature; 370, Studies in American Literature; 374, The American Novel; 376, The American Short Story; 383, Contemporary American Fiction. In addition, the following courses may be selected, dependent upon the particular content of the course in any given semester: English 329, Special Topics in Literature and Theory; 349, Special Topics in Literature and Culture; 379, Special Topics in 19th and 20th Century Literature; 389, Special Topics in Contemporary Literature; 399, Topics in Authorial Studies.
- c. One semester course in sociology or anthropology chosen from the following: Anthropology 212, Applied Anthropology; Anthropology 223, Native Peoples of Eastern North America; Anthropology 233, Anthropology of Religion; Anthropology 240, Qualitative Methods; Anthropology 335, Urban Anthropology; Anthropology 336, Social Organization; Sociology 222, The Family Phenomenon; Sociology 226, Race, Class, and Gender; Sociology 340, Social Change and Social Movements. Other courses may be substituted by permission of the American studies adviser.

#### Requirement III (Three courses)

Thematic concentration. At least three courses from relevant disciplines, with no more than two of these three to be taken in one department. Courses for the thematic concentration are to be chosen in close consultation with the American studies adviser to illuminate a topic of the student's choice. Although each topic will dictate a different selection of courses, the American Studies Program has approved the following list of American context courses offered by other departments and programs. These courses represent a partial listing of the many courses of special interest to American studies majors offered at Dickinson.

Anthropology. 214, Ecological Anthropology; 223, Native Peoples of Eastern North America; 334, Economic Anthropology; 335, Urban Anthropology; 336, Social Organization.

*Economics*. 100, Contemporary Economics; 214, A Contemporary Economic Issue; 222, Environmental Economics; 344, Public Finance; 347, Money and Banking; 350, Industrial Organization and Public Policy; 371, Topics in Economic History.

English. English 345, Women Writers; 348, Native American Novel; 358, Studies in Early American Literature; 370, Studies in American Literature; 374, The American Novel; 376, The American Short Story; 383, Contemporary American Fiction. In addition, the following courses may be selected, dependent upon the particular content of the course in any given semester: English 329, Special Topics in Literature and Theory; 349, Special Topics in Literature and Culture; 379, Special Topics in 19th and 20th Century Literature; 389, Special Topics in Contemporary Literature; 399, Topics in Authorial Studies.

Environmental Science. 131, 132, Environmental Science.

Environmental Studies. 111, Environment, Culture, and Values; 222, Environmental Economics; 260, Contemporary Science: Energy and the Environment.

Fine Arts. 204, American Art; 314, 20th Century Art.

History. 311, Studies in American History; 349, 350, U.S. Intellectual History I and II; 382, Diplomatic History of the U.S.; 388, African-American History; 389, Native Peoples of Eastern North America; 392, Immigrant America; 394, Family in America; 404, When American history topic.

Music. 108, American Jazz.

Philosophy. 245, Philosophy in the United States; 385, Theories of History.

Political Science. 241, Women and Blacks in American Politics; 242, Political Behavior; 243, Mass Media and American Politics; 244, Public Opinion; 245, Political Parties and Interest Groups; 246, Legislative Process; 247, American Presidency; 256, The City; 290, Selected Topics in Political Science.

Religion. 206, Jews and Judaism in the United States; 241, Topics in Art Literature and Religion: American Jewish Fiction.

Sociology. 222, The Family Phenomenon; 225, Urban Life; 240, Qualitative Methods; 250, Comparative Social Pathology; 300, Deviant Behavior and Social Control; 340, Social Change and Social Move-

The American studies list will be updated each year to include new course offerings. "Selected Topics" courses open to majors in other fields, with permission of the adviser, will be credited towards the American studies major when they are judged pertinent to Requirement III in each student's program.

Note: All courses credited toward the major must be taken for a letter grade unless they are not offered on this basis.

#### Minor

American Studies 201, 301, 401, and a thematic concentration consisting of three related courses from the disciplines, not more than two of which may be from a single discipline. See description of thematic concentration above.

# Anthropology

Anthropology seeks to understand the cultural, social, and biological dimensions of human populations. For example, people who study secret cults in the Amazon Basin, or dig up Pleistocene skeletons, or train mothers to treat infant malnutrition, all call themselves anthropologists.

Cultural anthropologists spend a long period of fieldwork getting to know one culture well, paying particular attention to how the people themselves see their world. The cultural anthropologist may focus on one aspect of the culture, but always with an eye on how the total system works. These in-depth studies, in some cases, become the basis for generalizations about humankind derived from comparisons with other cultures.

Biological anthropologists focus on anatomy, ethology, population genetics, nutrition, or human evolution. Archaeologists reconstruct past cultures through excavation and sophisticated dating techniques.

The anthropology curriculum provides students with a comparative perspective to appreciate human diversity and the complexity of contemporary problems. Majors go on to work in social services, education, business, and many other fields here and abroad. Some graduates earn higher degrees in archaeology, cultural anthropology, law, medicine, public health, and academic administration.

#### Faculty

Kjell I. Enge, Associate Professor of Anthropology. Chair. Ph.D., Boston University. Areas of specialization include ecological anthropology, comparative medical systems, reproductive health, political economy, agrarian systems, field methods, statistical analysis, and the application of anthropology to human problems. He has done research and teaching in Costa Rica, Guatemala, Mexico, and Peru. He provided technical assistance on primary health care to the Agency for International Development and the government of Guatemala. Currently, he is doing operations research on reproductive health and family planning services in Guatemala.

Ann M. Hill, Associate Professor of Anthropology. Ph.D., University of Illinois. Areas of specialization are economic anthropology, kinship, ethnic relations, complex societies, and the relation of language to culture. She has done fieldwork in Northern Thailand and in the People's Republic of China. Current research focuses on Chinese popular religion and ethnic groups in Southwestern China. (On leave Spring 1997)

Ellen J. Ingmanson, Assistant Professor of Anthropology. Ph.D., University of Oregon. Areas of specialization include primate social behavior, the evolution of human behavior, the human-ape divergence, and the role of ecology as a selective factor in behavioral evolution. Specific research has focused on the evolution of intelligence through an examination of chimpanzee tool-use, communication, and mother-infant interactions. Her fieldwork has been conducted in Zaire, Cameroon, and Japan, and includes both species of chimpanzees, *Pan paniscus* and *Pan troglodytes*. In addition to research, she is involved in primate conservation and has led summer field schools in Cameroon.

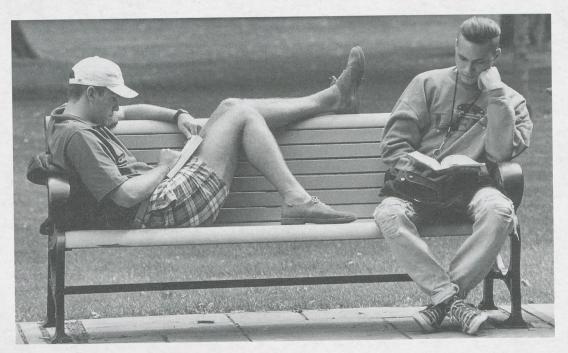
#### Courses

100. Introduction to Biological Anthropology The history of evolutionary thought is explored in relationship to Western European ideas about human origins. Neo-Darwinian evolutionary theory guides the overview of paleoanthropology, primate evolution and behavior, human genetics, microevolution, macroevolution, and human growth and development. Open to freshmen and sophomores; others by permission.

101. An Introduction to Cultural Anthropology A cross-cultural perspective on the human experience. Institutions such as the family, law, religion, and warfare are examined using examples from contemporary non-Western, non-industrialized societies. A brief overview of major schools of thought and the practice and ethics of anthropological research. Open to freshmen and sophomores; others by permission.

210. Language and Culture This course examines the relationship of language to culture and society. It includes the study of sociolinguistics, language acquisition, cognition, and descriptive linguistics. The stu-

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dent is introduced to major perspectives on language from Whorf, Hymes, de Saussure, and Levi-Strauss.

212. Applied Anthropology Sociocultural change, development, and modernization in both Western society and the Third World are examined in terms of theory and practice. Emphasis is on the planning, administration, and evaluation of development projects in agriculture, energy, education, health, and nutrition. The increasingly important role of professional anthropologists and anthropological data is examined in the context of government policies and international business.

214. **Ecological Anthropology** An examination of human adaption to changing environments with an emphasis on systems analysis. Special attention on development and current environmental problems. *This course is cross-listed as Environmental Studies* 214.

215. Anthropology of Political and Legal Systems A comparative examination of conflict resolution and social control in non-Western societies. Legal systems, broadly defined, are seen as a cultural universal; societies in diverse ecological settings and at various levels of social and political complexity are compared to illustrate the relationships between law and other

aspects of culture. Legal systems in egalitarian and stratified societies are compared, with special emphasis on the legal complexities of plural societies.

216. Medical Anthropology Comparative analysis of health, illness, and nutrition within environmental and socio-cultural contexts. Evolution and geographical distribution of disease, how different societies have learned to cope with illness, and the ways traditional and modern medical systems interact.

217. Cross-Cultural Perspectives on Gender Use of comparative method to understand variations in the patterning and content of gender roles and status across cultures. Although focused primarily on non-Western cultures, the course will also examine gender among U.S. ethnic groups. Emphasis is on placing gender roles and status in the broad, holistic context of interrelations among cultural ideologies, social institutions, and material conditions. Offered every other year. This course is cross-listed as Women's Studies 217.

218. Biosocial Aspects of Female Sexuality Female sexuality and the experience of human birth will be discussed in an evolutionary framework. Pregnancy, lactation, parturition, mother-child bonding, needs of

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the neonate, and roles of other family members will be considered in the transition from woman to mother. Psychosocial dimensions of the birthing experience will be considered cross-culturally. Offered every other year. This course is cross-listed as Women's Studies 218.

- 220. Fundamentals of Archaeology Methods and techniques of modern archaeology as a subdiscipline of anthropology. A survey of culture process through time with special emphasis on North American aboriginal societies. Ecological reconstruction of human life ways. Field trips to local sites.
- 221. Archaeology of Latin America An archaeological and ethnological reconstruction of the rise of civilization in Mesoamerica and South America from the early hunters to the high cultures of Aztec, Maya, and Inca. Cultural consequences of the Spanish Conquest. Offered every other year.
- 222. Contemporary Peoples of Latin America An examination of the life of present-day primitive and peasant peoples of Middle and South America. These societies are seen holistically, and as they relate to urban and state centers. Offered every other year.
- 223. Native Peoples of Eastern North America See course description with History 389 listing.
- 229. Principles of Human Variation and Adaptation The biological basis of human variation through genetic adaptation is explored. Race as a social and biological concept is examined critically. Basic demographic principles are applied to the observation of variation in human populations.
- 230. Archaeology of Ancient China Prehistoric origins of Chinese civilization as revealed by archaeology. The development of technology, social organization, language, art, and belief systems up to the time of Confucius.
- 231. Chinese Civilization An introduction to Chinese civilization beginning with the foundation of imperial China. Enduring Chinese institutions and modes of thought and expression are viewed in the broad context of traditional China. A brief consideration of modern China is included by way of contrast. Offered every other year.

- 232. Anthropology of Contemporary Chinese Society A study of contemporary Chinese populations in the light of traditional culture and social life. An examination of the profound changes in Chinese lives under socialism in the People's Republic of China. Focuses on changes in family, community organization, and belief systems. Offered every other year.
- 233. Anthropology of Religion A cross-cultural survey of the functions of religion, magic, and myth in simple and complex societies. Religion and communication. Myth and social structure. A historical summary of the scientific study of religion.
- 240. Qualitative Methods This course introduces students to the theory and methods of social science research, beginning with an examination of the philosophies underlying various research methodologies. The course then focuses on ethnographic field methods, introducing students to the techniques of participant observation, structured and informal interviewing, oral histories, sociometrics, and content analysis. Students design their own field projects. Prerequisite: At least one course in sociology, anthropology, or American studies.
- 241. Quantitative Data Analysis This course focuses on quantitative data analysis. Students learn how to design, code, and analyze interviews and surveys. Selected databases and statistical programs are used to analyze current social issues and compare samples. *Prerequisite: Sociology/Anthropology 240*.
- 316. Nutritional Anthropology Human dietary behavior is examined in an evolutionary context. Food acquisition, processing, and distribution are discussed in relationship to environmental adaptations. The relationship of dietary decision making to human health and use of the environment is studied at the individual and community level of analysis. Nutritional anthropology methods including analysis of growth and development and clinical techniques of nutritional assessment are studied through laboratory exercises. Prerequisite: 100 or 216 or Biology 111. Offered every other year.
- 331. **Principles of Human Evolution** This course reviews the history of evolutionary concepts and theories as it has affected the development of biological anthropology. The systematic study of human

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macroevolution is made through lectures and discussion of assigned readings. A paleanthropology laboratory provides examples of macroevolution as seen in primate and human skeletal anatomy. Recent applications of Neo-Darwinian theory to the study of human populations are presented. *Prerequisite: 100, 216, 218, 229, or Biology 111, 112.* 

334. Economic Anthropology An anthropological approach to economic production and exchange. Focus on non-Western societies where production and distribution of goods are institutionalized within political, religious, and kin groups. Place of markets in societies cross-culturally. Strategies of economic development and their consequences for rural poverty. Prerequisite: 101 or other courses in the Departments of Anthropology and/or Economics. Economics 100 recommended.

335. Urban Anthropology Urban sociocultural structure in terms of demography, class divisions, and participation in the formal wage economy and the informal entrepreneurial sector. Dynamics of urbanization in the Third World and the increasing gap between the rich and poor. Government policy and legislation regarding resource allocation between rural and urban areas. Prerequisite: 101 or any 200-level course; also courses in American studies. To be offered every other year.

336. Social Organization The webs of kinship in tribal, traditional, and modern societies examined in relation to production, exchange, politics, law, and ideology. Effect of rapid social change on kin groups, families, and non-kin organizations; adaptation to new ecological, economic, and political realities. *Prerequisite:* 101 or any 200-level course.

337. Ethnology of Mesoamerica An examination of anthropological studies of indigenous people of southern Mexico and Guatemala. Emphasis will be on the process of change and relations with Western society from the Spanish Conquest to the present. Both classic and more recent ethnographic sources will be used. Prerequisite: 101 and a 200-level anthropology course. To be offered every other year.

340. Prehistoric Cultures of North America The course focuses on the cultural history and evolution of selected societies north of Mexico before European

contact. Technological, sociological, and ideological aspects are considered from reconstructions based on archaeological evidence. *Prerequisite: 220 or permission of instructor.* 

390. Anthropology Seminar A specialized seminar investigating the contributions of various anthropological approaches to the understanding of cultural processes. Representative topics are: Applied Anthropology; Comparative Medical Systems; Prehistory of North America. *Prerequisite: Permission of the instructor or anthropology major.* 

395. Archaeological Field Studies Application of the fundamentals of excavation and the analysis of artifactual materials from the excavation of a site in the Carlisle area. Sites will be located within daily commuting distance of the College. *Prerequisite: permission of the instructor. Offered in summer school only.* 

396. Field School in Cultural Anthropology Field study of selected anthropological problems in Cameroon. Analysis of cultural, social, economic, and environmental systems using participant observation, interview protocols and other appropriate methodologies. Pre-departure workshops, six-week field study and post-fieldwork write-up. Offered in summer school only. Two course credits.

#### Major

Ten courses including 100, 101, 240, 241, 331 or 336, 390, and four additional courses, two of which may be either Classical Studies 221, 222, 223, or 224.

#### Minor

Six courses, including 100 and 101 and four additional anthropology courses. Students who are interested in a minor should consult with the department.

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# Archaeology

his program allows students to add a minor in archaeology to their major in a related field, such as anthropology, chemistry, fine arts, geology, Greek, history, or Latin. Archaeology itself is not a major, but an interdisciplinary program that allows students to complement their major with a study of human culture from an archaeological point of view. Interdisciplinary in nature, the archaeology minor requires students to take courses in more than one department, principally anthropology and classical studies. Five courses form the core of the minor, required of all students in the program:

Anthropology 101: Introduction to Cultural Anthropology

Anthropology 220: Fundamentals of Archaeology Classical Studies 222 OR 223: Mycenaen & Minoan

Archaeology OR Intro. Etruscan Archaeology

Classical Studies 221 OR 224: Intro. Greek Archaeology OR

> Intro. Roman Archaeology

One course in excavation fieldwork or museum internship

Two other courses in archaeology, or related studies, are required for completion of the minor; these may be chosen according to the student's interests, needs, and background. These two elective courses may be chosen from the following:

Anthropology 100: Intro. to Biological Anthropology

Anthropology 214: Ecological Anthropology Anthropology 331: Principles of Human Evolution

Anthropology 340: Prehistoric Cultures of North

America

Classical Studies 222/223, 221/224 (whichever two courses were not elected for the core requirement)

Fine Arts 202: Ancient Art

Anthropology 500/Classical Studies 500: Independent Studies in Archaeology

Other courses not listed above, but which might relate to archaeology (e.g., specialized work in geology or chemistry) will be considered on an individual basis for satisfaction of the two-course elective requirement.

An important component of the minor is field experience in archaeology, and all students will be encouraged to spend part of one summer at an excavation, either in the United States or abroad. The Department of Anthropology in some years offers a summer field course, Anthropology 395 (Archaeological Field Studies), which will be conducted in the Carlisle area. The classical studies department, in cooperation with the University of Durham, England, has sponsored summer excavations in the archaeology of Roman Britain since 1973. The cooperating faculty realize that some students may find work in a museum an important part of the archaeological studies; internships in the Trout Gallery or local museums will also be encouraged. Students will be advised by a faculty committee on archaeology.

#### Archaeology Advisory Committee

Ann M. Hill, Associate Professor of Anthropology (On leave Spring 1997)

R. Leon Fitts, Professor of Classical Studies

Mary E. Moser, Associate Professor of Classical Studies, Coordinator

# Astronomy

See Physics and Astronomy

# Biology

he Department of Biology provides the liberal arts scholar with a broad view of the living world life. Commanding this view, students see themselves as part of this world rather than apart from it, and human social relationships are then recognized as only one aspect of an intricate system uniting all forms of life.

The study of biology brings together students with diverse backgrounds and very different interests in an atmosphere of inquiry to examine the biotic world. The examination process develops the skills of observation, analysis and expression, the ability to evaluate data and draw conclusions, and the art of distinguishing between substance and accident. Development of these qualities in the liberal arts student is a primary goal of the biology department's efforts.

Biology is an experimental science. Every biological fact and principle rests upon experiment and observation in the laboratory or in the field. Some good biology can still be done with a stout pair of hiking boots and a butterfly net, but for the most part expert usage of modern equipment is required. Expertise develops with hands-on experience, and for this reason a laboratory is an essential part of general biology and upper-level courses.

Biology 105 and 108 are non-laboratory courses designed for liberal arts students who are interested in biology and contemporary problems. Biology 111, 112, lecture and laboratory, introduce the structure and function of living systems and provide a broad foundation for majors and nonmajors alike. Upper level courses provide students with training in selected areas of biology. Skills in handling information, computer usage, statistical analysis, literature searches, and critical reading of current journal articles are acquired. Three-hundred level courses provide for advanced work in the study of protists, fungi and plants (Bio. 322, 323, 324, 325, 326, and 327); the study of animals (Bio. 318, 321, 333, and 334); and in specialized subject areas (Bio. 313, 314, 317, 340, and 380) which encompass all of biology. Four-hundred level courses (Bio. 401, 412, 414, 417, and 421) provide opportunities for in-depth study of certain areas which are of current interest to the community of biologists.

The courses in biology comprise an appropriate background for students who contemplate immediate employment after commencement, as well as for those who plan to attend graduate school or a professional school. Through seminars and independent study or research, opportunities are provided for students to develop their research skills.

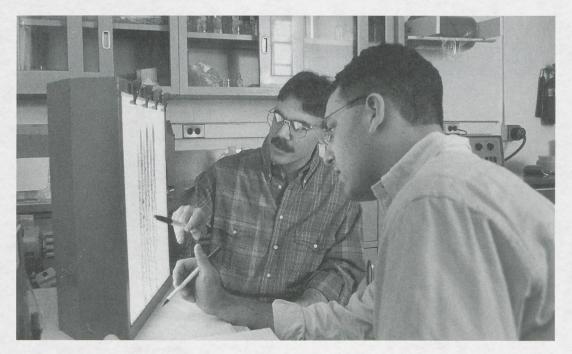
Other valuable learning activities, which students and faculty share, include the biology department Seminar and periodic field trips, for example, to the Great Smoky Mountains National Park and the Bahamian Field Station. The department also encourages participation in off-campus biology opportunities for a semester or a year such as those offered by the School for Field Studies and the Dickinson programs at the University of East Anglia and the University of Bremen.

#### Faculty

Thomas M. Brennan, Professor of Biology. Ph.D., Rutgers University. He teaches courses in photobiology, plant physiology, and biochemistry. His research deals with the light-dependent generation of reactive forms of oxygen, such as hydrogen peroxide and singlet oxygen, in plant tissues. He has studied the involvement of these compounds in regulation of chloroplast enzyme activity, and is currently investigating the effects of photosensitizers on metabolic processes such as photosynthesis and hormone degradation.

Janet Wright, Associate Professor Biology. Chair. Ph.D., Cornell University. She teaches courses in ecology, population genetics, and evolution. Her research interests deal with ecology of mammal populations. She has studied the role of woodchucks in the spread of Lyme disease and other disease agents and is currently investigating the Allegheny Woodrat, a threatened species.

John Henson, Associate Professor of Biology. Ph.D., Harvard University. He teaches courses in cell biology, immunology, animal development, and marine science. His research program utilizes marine orgnisms as model experimental systems for studying basic aspects of cell structure and function, particularly how cells move and change shape. The research projects



involve a synthesis of cell biological, biochemical, and immunological techniques. During the summer Professor Henson and his student assistants work at the Mount Desert Island Biological Laboratory on the Coast of Maine.

Carol C. Loeffler, Assistant Professor of Biology. Ph.D., Cornell University. She teaches courses in algae, fungi, lichens, and land plants. Her current research interests are in the biology and ecology of rare plant species. Past research topics include the habitat distributions and interactions of goldenrods and their insect herbivores.

Michael P. Roberts, Assistant Professor of Biology. Ph.D., Yale University. He teaches courses in genetics and molecular genetics. His research interests include the molecular mechanisms regulating the turn-on and -off of eukaryotic genes. Currently, he is studying the regulation of gene expression in human leukemia cells during differentiation. This project utilizes the methods of recombinant DNA and molecular biology.

Anthony Pires, Assistant Professor of Biology. Ph.D., Cornell University. He teaches courses in neurobiology and invertebrate zoology. His research interests are in the neural control of developmental events. He is currently working on the neurochemical regulation of settlement and metamorphosis in larvae of marine invertebrates.

Charles F. Zwemer, Assistant Professor of Biology. Ph.D., Indiana University. He teaches courses in physiology, microanatomy, and vertebrate biology. His research addresses issues of cardiovascular, respiratory, and renal function in normal and diseased states. Currently, he is studying the pathophysiology of brain and kidney injury following resuscitation from arrested blood flow states. These projects involve a synthesis of techniques in biochemistry, physiology, anatomy, and pathology.

#### Courses

105. Biological Aspects of Contemporary Problems Students acquire an appreciation of the complexities of living things and living systems. They become familiar with biological principles by focusing on a variety of contemporary problems and also analyzing the underlying biological components. This course will not count toward a major or minor in biology. Three hours classroom a week.

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- 108. Modern Natural History Through classroom study and field trips students learn to know various fascinating living creatures from the primitive to the most complex. They are also introduced to natural history literature which relates these organisms to our cultural, social, and economic history. This course will not count toward a major or a minor in biology. Three hours classroom a week.
- \*111, 112. General Biology The structure and function of living systems. Lectures, discussions, and laboratory observations and experiments, designed to provide the informed citizen with an understanding of the fundamental principles and methods used in biology. Three hours classroom and three hours laboratory a week.
- 304. Field Study of Marine Carbonate Environments Prerequisite: Geology 221 or Environmental Studies 221. See description with Geology 304 listing. Offered in January term only.
- 313. **Cell Biology** An introduction to the structure and function of cells, with emphasis on the molecular mechanisms of cellular processes. The course will involve discussion-oriented lectures and readings from the current literature. The laboratory will stress the discovery approach in applying state of the art techniques to cell biological experiments. *Prerequisite:* 111, 112.
- 314. Ecology Study of the interactions of organisms with each other, and with their environment, at the level of the individual, the population, the community, and the ecosystem. Lectures and readings consider both the theory of ecology and data from empirical research in the classic and current literature. Laboratory and field studies explore how ecologists perform quantitative tests of hypotheses about complex systems in nature. Six hours classroom a week. Prerequisite: 111, 112 or Environmental Studies 131, 132. Offered every other year. This course is cross-listed as Environmental Studies 314.
- 317. **Genetics** A study of Mendelian genetics, linkage, and mutation. An introduction to basic DNA structure and function including replication, transcription, and translation. Laboratory exercises involve both classic and molecular approaches to genetic analysis

- utilizing prokaryotic and eukaryotic organisms. Six hours classroom a week. Prerequisite: 111, 112.
- 318. Animal Development Material deals with descriptive embryology and the mechanisms of development including the genetic and biochemical levels. Laboratory includes observation of selected examples of vertebrate development and experimental investigations of developmental processes. Six hours classroom a week. Prerequisite: 111, 112.
- 321. Invertebrate Zoology An integrated lecture and laboratory study of the anatomy, taxonomy, evolution, ecology, physiology, and embryology of invertebrates. Representatives of the major invertebrate phyla are examined in the field and in the laboratory. Six hours classroom a week. Prerequisite: 111, 112 or Environmental Studies 131, 132. Offered every other year.
- 322. Plant Systematics A systematic survey of the plant kingdom through the collection and study of living plants. Frequent field trips are conducted as weather permits. An herbarium of named plants is prepared. Emphasis will be placed on the diverse features of plants which permit effective study of fundamental biological problems. Six hours classroom a week. Prerequisite: 111, 112 or Environmental Studies 131, 132. This course is cross-listed as Environmental Studies 322.
- 323. Algae, Fungi and Lichens Study of the systematics, morphology, ecology, evolution, physiology, and development of algae, fungi, and lichens. Lecture and discussion include examples and readings from classic and recent research. Laboratories include field surveys and collections, follow-up laboratory identifications, and experimental investigations including directed individual or small-group research projects. Six hours classroom a week. Prerequisite: 111, 112. Offered every other year.
- 324. Plant Geography and Ecology Analysis of factors determining the distribution and abundance of plant species, including study of plant migration patterns today and in the distant past. Lecture includes examples and readings from classic and recent research. Field, laboratory, and greenhouse studies focus on plant demography, plant-animal interactions, plant community structure, competition, soil and water relations, and other topics. Prerequisite: 111, 112 or Environmental Studies 131, 132. Offered every two years.

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- 325. Vascular Plants: Structure and Function An integrated study of the anatomy and physiology of higher plants. Structure-function relationships in the cells, tissues, and organs of vascular plants, growth and development, photosynthesis, and selected additional topics will be studied. Includes lecture, laboratory, and discussion of papers from the primary literature. Six hours classroom a week. Prerequisite: 111, 112.
- 326. **Microbiology** The taxonomy, physiology, and heredity of bacteria and viruses. Laboratory projects are designed to provide technical competence in handling micro-organisms. Six hours classroom a week. Prerequisite: 111, 112 or Environmental Studies 131, 132.
- 332. Enzymes and Metabolism A lecture and laboratory study covering the metabolism of the major classes of molecules found in living systems. Includes enzyme structure and function, bioenergetics, metabolic pathways and their regulation, metabolic disorders, and other selected topics. The laboratory is designed to acquaint the student with methods used to study the properties and behavior of biological molecules and their functions in cellular metabolism. Six hours classroom a week. Prerequisite: 111, 112, Chemistry 241, 242, or permission of the instructor. Offered every other year.
- 333. Physiology A study of physiological mechanisms in the animal kingdom, stressing the structural and functional bases of biological activities. Emphasis is on vertebrate organs and organ systems. Laboratory includes experimental physiological studies of selected organisms. Six hours classroom a week. Prerequisite: 111, 112.
- 334. **Vertebrate Biology** An integrated lecture and laboratory study of the anatomy, embryology, physiology, and evolution of vertebrates. Representatives such as the lancelet, lamprey, shark, perch, mud puppy, pigeon, chicken, and rat are studied from the perspective of functional anatomy. *Six hours classroom a week. Prerequisite: 111, 112.*
- 340. **Photobiology** An integrated study of the effects of light upon living organisms at the molecular, organismic, and ecosystem levels. Examines the regulatory role of light in a variety of biological responses, as well as application of the principles of photobiology to current problems in medicine and agriculture.

- Includes lecture/discussion, laboratory, and student research projects. *Prerequisites: 111, 112. Offered every two years.*
- 380. Immunology A team-taught study of the biological and chemical aspects of the field of immunology. The areas covered include immunochemistry, immunogenetics, cell-mediated immunity, and immunopathology. Emphasis in the class and the laboratory will be on the process and analysis of experimental investigation. Also listed as Chemistry 380. Prerequisites: Biology 112 or Chemistry 242 or Biology 313 or permission of the instructor. Offered every other year.
- 401. Special Topics An in-depth study of specialized subject areas of biology. Some recent topics included Experimental Virology, Biology of Crustacea, Photosynthesis, and Histology. Topic, course structure, credit, and instructor will be announced by preregistration. Prerequisite: 111, 112 and at least two upper-level biology courses, and permission of the instructor. Offered occasionally.
- 412. Seminar Through detailed study of the primary biological literature, students acquire an understanding of the methodology and philosophy of scientific research. Includes study of the formulation of hypotheses, the design of experiments or observations to test these hypotheses, and the interpretation of results. Subject matter varies based upon the interests of instructor and students. This course satisfies the requirement for a research experience for the biology major. *Prerequisite: 111, 112, and one upper-level biology course.*
- 414. Population Genetics and Evolution Study of current knowledge of the evolutionary process and its genetic basis. Lecture, readings from the primary literature, laboratory investigations, and field study are used to consider evolutionary trends. Emphasis is on the new theoretical and empirical approaches that population geneticists and evolutionary biologists are using to reexamine such issues as how evolution affects gene pools; how fast populations can evolve; the implications of the fossil record; causes of extinctions; how species originate; relationships among living organisms; and adaptive versus non-Darwinian evolution. Six hours classroom a week. Prerequisite: 111, 112, 314 or 317 or permission of instructor. Offered every other year.

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417. Molecular Genetics A study of the molecular aspects of gene structure and function. Course topics include recombinant DNA techniques, regulation of gene expression, oncogenes, tumor suppressor genes, molecular developmental genetics, and human molecular genetics. The laboratory studies utilize contemporary, molecular methods to explore DNA organization and function. Six hours classroom a week. Prerequisite: 111, 112, 317. Offered every other year.

421. Symbiosis A concentrated study of the biology of association between dissimilar organisms, including representative parasites of man. Readings in the recent literature, examination of different levels of intimacy through selected field and laboratory exercises with living and preserved organisms, and directed individual research projects exploring less well known associations will be employed in the learning experience. Six hours classroom a week. Prerequisite: 111, 112, and one 300-level biology course, and permission of the instructor. Offered every other year.

Field Biology Courses at the School for Field Studies. Dickinson is an affiliate of the School for Field Studies (SFS), an institution whose purpose is to offer courses and on-site fieldwork in ecology, behavior, and conservation biology. Students can spend a semester at one of five permanent campus centers to study coastal ecology (British Columbia), island ecology (Palau, N. Pacific), rainforest ecology (Australia), wildlife management (Kenya), or marine ecology (Turks and Caicos Is., Bahamas). A typical semester program would receive two biology and two general Dickinson credits. In addition, SFS has shorter summer courses for variable credit at field sites worldwide. The SFS programs afford a unique opportunity for intensive study and active biological research in diverse environments.

#### Major

Nine courses in biology, excluding 105 and 108, including one of the following upper-level courses in botany: Biology 322, 323, 324 or 325, and one of the following upper-level courses in zoology: Biology 318, 321, 333, 334, 421. In addition, Chemistry 241 and 242 are required. The nine biology courses required for the major may not include more than one course in independent study or research unless the student has received advanced placement beyond Biology 111-

112; then two courses of independent study or research may be counted toward the major. Of the nine biology courses required for the major, at least four must be upper-division laboratory courses (exclusive of independent study-research) taken in residence at Dickinson.

All biology majors must include a research experience as part of their undergraduate program. This requirement may be satisfied by successful completion of any one of the following:

- 1) an independent research project in biology;
- 2) an off-campus internship for biology credit;
- a research-oriented seminar in biology (Biology 412);
- a research experience not covered by the above but deemed equivalent by the department.

Two semesters of mathematical sciences (Calculus and/or Statistics), and two semesters of physics are strongly recommended for students intending graduate study toward an advanced degree in biology or the health professions. Some of these courses are prerequisites for upper-level courses and students should examine course descriptions carefully. Students should consult with their faculty advisers about taking additional courses in other sciences that might be important to their career plans. Students who contemplate graduate work in biology are encouraged to gain familiarity with one or more foreign languages (especially French, German, Russian).

#### Minor

Six courses, including one of the following upper-level courses in botany: Biology 322, 323, 324 or 325, and one of the following upper-level courses in zoology: Biology 318, 321, 333, or 334. In addition, Chemistry 141 is required.

**Note:** A student intending to receive certification from the Pennsylvania Department of Education at the time of graduation must include within his or her program a course in botany, a course in genetics, and a course in ecology.

# Chemistry

he chemistry department provides students with knowledge and understanding of the composition, structures, properties, and transformations of natural and man-made substances through workshops, lectures, problem-solving exercises, laboratory work, research opportunities, and outside speakers. The department maintains an informal, personalized atmosphere in which students, faculty, and support staff can work and talk with each other as colleagues. Qualified majors have the chance to help the department and other students as tutors or teaching assistants.

The courses in general chemistry (Chem. 103, 111, 112) are offered for students who wish to acquire or strengthen a background in chemistry but do not plan a career in science. The department feels keenly the need for citizens with some exposure to and appreciation of the questions, methods, and results of science and of its limitations as well. The Foundations of Chemistry course provides an in-depth introduction to chemistry in small workshop sections for students planning to take further chemistry courses or to take a major in a science. Students considering a major in chemistry should schedule Chemistry 141 and 241 their first year in order to allow time for a wider choice of electives in their upperclass years.

The advanced courses offered by the department are designed to meet the needs of students who are preparing for graduate work in chemistry or related areas; for medicine, dentistry, or other health professions; for high school teaching of chemistry; and for a wide variety of chemistry-related positions in industry and government. These courses provide background in the major subfields of chemistry, as well as the opportunity for advanced or specialized work.

The department has well-equipped laboratories for teaching and research. The modern computer-controlled instruments, gas chromatograph-mass spectrometer, Fourier-transform infrared spectrophotometer and Fourier-transform nuclear magnetic resonance spectrometer, are routinely used by the students. The department, including the chemistry library, is housed in Althouse Science Hall.

The chemistry department program and facilities are fully accredited by the American Chemical Society.

#### Faculty

Robert E. Leyon, Professor of Chemistry. Chair. Ph.D., Princeton University. His interests lie in analytical chemistry, especially graphite furnace atomic spectroscopy (GFAS), mathematical methods in analytical chemistry, computer simulations, and environmental chemistry. His current interest is in using the Kalman filter to evaluate the various equations that have been used to describe the signals obtained in GFAS.

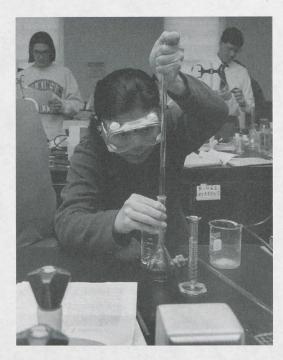
Cindy Samet, Associate Professor of Chemistry. Ph.D., University of Virginia. Her interests are in physical chemistry and focus on ultraviolet, visible, and infrared spectroscopic studies of molecules frozen in noble gas matrices at very low temperatures. Presently, she is studying hydrogen-bonding phenomena in matrix-isolated hydrocarbon-ammonia complexes using Fourier-transform infrared spectroscopy.

Michael S. Holden, Associate Professor of Chemistry. Ph.D., Colorado State University. His interests are in the area of organotransitionmetal-mediated synthesis of organic compounds. Presently, his research is focusing on the development of new reactions involving an easily accessible organo-iron system. Another ongoing effort is the development of microscale laboratories for organotransitionmetal chemistry.

R. David Crouch, Assistant Professor of Chemistry. Ph.D., The Johns Hopkins University. His research interests lie in the development and application of new organic synthetic methodology. Current work is focused on investigations of a chemoselective reaction of alkenes and the development of a method for inducing asymmetry in the functionalization of acrylate esters. Another area of interest is developing discovery-based and biomimetic organic chemistry lab exercises.

Ashfaq Bengali, Assistant Professor of Chemistry. Ph.D., University of Minnesota. His interests lie in the area of physical inorganic chemistry. His research is focused on elucidating the mechanisms of very fast

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chemical reactions using the technique of laser flash photolysis.

#### Courses

103. General Chemistry Similar to 111 (below) except that there is no laboratory requirement. For students planning to major outside the sciences. Three hours classroom a week. Chemistry 103 may be used as a prerequisite for Chemistry 112. The sequence 103, 112 will not meet the College requirement for a two-semester laboratory sequence.

\*111, 112. General Chemistry Some fundamental concepts of atomic structure, bonding, states of matter, and chemical reactions. Basic principles of organic chemistry and biochemistry. Applications in everyday life are emphasized. Three hours classroom and two hours laboratory a week. This course sequence will not count toward major or minor requirements in biology or chemistry. Students who decide to pursue chemistry courses after completion of 111 or 112, must enroll in 141. Students will not receive graduation credit for both 111 and 141, or both 112 and 241. Prerequisite for Chemistry 112 is either 103 or 111. The sequence Chemistry 103, 112 will not meet the College requirement for a two-semester laboratory sequence.

141. Foundations of Chemistry An introduction to the principles of chemistry in a laboratory-centered course. Three broad topics are studied: chemical reactivity, atomic and molecular structure as the basis of reactivity, and chemical equilibrium. Emphasizes repeating themes, such as periodicity, reactivity, and stoichiometry. The sequence 141, 241 will meet the College requirement for a two-semester laboratory sequence.

241. Synthesis and Reactivity I The major focus of this course is on the reactivities of organic and inorganic molecules; this is an extension of the study of the covalent bond that was studied in Chemistry 141. Topics include reaction types and mechanisms, stereochemistry, nomenclature, and spectroscopic methods. Laboratory work involves the synthesis, analysis and identification of organic and inorganic molecules. Three hours classroom and four hours laboratory a week. Prerequisite: 141. The sequence 141, 241 will meet the College requirement for a two-semester laboratory sequence.

242. Synthesis and Reactivity II This course continues the study of the reactivities of organic and inorganic molecules started in 241. Particular emphasis is placed on unsaturated systems. Laboratory work continues investigations into the synthesis, analysis, and identification of organic and inorganic molecules begun in 241. Three hours classroom and four hours laboratory a week. Prerequisite: 241.

244. Equilibrium Systems The fundamentals of chemical thermodynamics and quantitative analysis are introduced as a unifying basis for the discussion and experimental study of chemical equilibrium. The laboratory work will develop skill in making quantitative chemical measurements by a variety of techniques, interpreting the results with simple statistical methods, and reporting them in accepted scientific formats. Three hours classroom and four hours laboratory a week. Prerequisites: 141, Math 162 or concurrent enrollment, Physics 132 or 142 or concurrent enrollment.

341. Energy and Structure Examines how the Quantum Theory, and in particular the Schrödinger Equation, makes possible the determination of translational, rotational, and vibrational energies of molecules, and how spectroscopy experimentally determines the energy and hence structure of atoms and molecules.

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Three hours classroom and four hours laboratory a week. Prerequisites: 141, Math 162 and Physics 111 or 131, or concurrent enrollment, or permission of the instructor.

342. **Biochemistry** Introduction to the chemistry of living systems, with emphasis on their molecular structures, chemical properties, metabolic pathways, kinetics, and energetics. The chemical bases for biological phenomena are extensively examined. The laboratory will focus on the methods used to study the properties and behavior of biological molecules. *Six hours classroom/laboratory a week. Prerequisite 242.* 

351, 352. Integrated Laboratory This course sequence emphasizes extended individual and group projects that cross the traditional boundaries between analytical, biological, inorganic, organic, and physical chemistry. Students use a wide variety of advanced laboratory techniques to solve chemical problems that demonstrate the interdependence of these traditional areas of chemistry. Students are expected to communicate the results of their work in oral and written presentations. Two four-hour sessions a week. Prerequisites: 351: 242, 244 and 341 or concurrent enrollment. 352: 342 and 351 or concurrent enrollment.

355. Advanced Organic Chemistry Advanced studies in the synthesis, structure elucidation, reaction mechanisms, and literature searches of organic compounds. Laboratory work includes advanced synthetic techniques, modern gas and liquid chromatographic separation, and the use of computer-based infrared, nuclear magnetic resonance, and mass spectrometric instrumentation. Integration of these techniques in practical problem solving is emphasized. *Three hours classroom and four hours laboratory per week. Prerequisite:* 242

380. Immunology A team-taught study of the biological and chemical aspects of the field of immunology. The areas covered include immunochemistry, immunogenetics, cell-mediated immunity, and immunopathology. Emphasis in the class and the laboratory will be on the process and analysis of experimental investigation. Also listed as Biology 380. Prerequisite: Biology 112 or Chemistry 242 or Biology 313 or permission of the instructor. Offered every other year.

431. Inorganic Chemistry Atomic and molecular structure, modern principles of chemical bonding,

chemical trends and the periodic table, coordination chemistry, reaction mechanisms of ligand substitution, transition metal chemistry, and chemistry of selected transition and representative elements. *Three hours classroom a week. Prerequisite: 341.* 

490. Advanced Topics in Chemistry Topics may be drawn from areas such as heterocycles, natural products, medicinal chemistry, food and nutrition, industrial chemistry, organic synthesis, inorganic synthesis, nuclear magnetic resonance, measurement including computer applications, spectroscopy, statistical thermodynamics, and catalysis. Three hours classroom a week. Prerequisite: Permission of the instructor.

#### Major

141, 241, 242, 244, 341, 342, 351, 352, one other course and a research experience. In addition: Physics 111, 112 or 131, 132 and Math 161, 162 are required. The research experience may be one of the following: a. an independent research course in chemistry b. an off-campus internship for chemistry credit c. a research experience not covered by the above but deemed equivalent by the chemistry department.

#### Minor

141 and 5 courses in chemistry, excluding 103, 111, 112.

**Note:** Any student desiring certification by the American Chemical Society should consult with department chair at the time of declaring a major.

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### Chinese

hinese is an ancient language, yet it is not antiquated. The written form of it dates back more than 3,000 years. Today, it is still used by over a billion people in the world. Chinese is also one of the five official languages used at the United Nations.

Chinese is a unique language, different from all the Indo-European languages. It uses characters instead of the alphabet, and its verbs are not conjugated. Each character is like a small picture, a world of its own, ideal for artists and poets to create wonders.

Courses in Chinese at Dickinson help students gain direct access to China, an ancient civilization as well as a fast changing society in Asia. Class work emphasizes speaking, reading, and writing Mandarin Chinese, also called *Guoyu* or *Putonghua*, the official language of both mainland China and Taiwan.

Recognizing the differences in the political, social, and language spheres between mainland China and Taiwan, classes incorporate important elements of both. The romanization system for the class is *pinyin*, which is currently in use in mainland China. Both the traditional characters, used in Taiwan and throughout China's history, and the simplified characters, used in mainland China today, are studied; so are the social customs reflected in the language of both.

The four-semester sequence covers two volumes of a Chinese textbook, accompanied by exercise books and audio tapes. Students, in due course, are also exposed to Chinese poems, folk songs, stories and a number of Chinese movies. A recently established exchange program with Renmin University enables students who have completed the four-semester sequence at Dickinson to continue their study of Chinese language and culture at Beijing, for either one or two semesters.

Study of Chinese is an integral part of such majors as East Asian Studies and International Studies. Other students who want to challenge themselves by taking up an unfamiliar language are also encouraged to take Chinese. Completion of the four-semester sequence fulfills the College's foreign language requirement.

#### Faculty

Rui Yang, Assistant Professor of Chinese Language and Literature and East Asian Studies. Ph.D., University of Massachusetts. Her fields of specialization are pre-modern and modern Chinese fiction with emphasis on psychoanalytic criticism. Her research and teaching interests include Chinese language teaching, Chinese folklore, comparative literature, and autobiographical writing.

#### Courses

\*101, 102. Elementary Chinese A study of the fundamentals of Mandarin Chinese, including grammar, reading, and writing using both traditional and simplified characters, pinyin romanization, pronunciation, and conversational skills. Offered every other year, depending upon demand.

\*211, 212. Intermediate Chinese An enhancement of the oral and written skills of elementary language study. In addition, students will learn to use dictionaries to translate original literary works. Extra conversational work will be included, geared to understanding and participating in Chinese culture. Offered every other year, depending upon demand. Prerequisite: 102, or the equivalent.

\*231, 232. Advanced Chinese Advanced reading, writing, speaking, and understanding of the Chinese language for students who have completed Chinese 212. This course aims to enhance the students' understanding of Chinese culture and introduce them to issues in contemporary China through reading and discussion. *Prerequisite: 212 or the equivalent.* 

\*361, 362. Advanced Chinese II Reading of selected literary works by modern Chinese writers and articles from Chinese newspapers and magazines. These courses involve more sophisticated conversation and composition on important social, political, and economics issues in China. *Prerequisite: 232 or permission of the instructor.* 

(See East Asian Studies)

### Classical Studies

ocrates wrote, "Past deeds are indeed a common legacy to us all. But to make proper use of them, to conceive rightly their details and document them with polish is the gift of those who think." Courses in classical languages give opportunity for such thought about the past. Drawing upon the literature, history, and culture of Greece, Rome, and Israel, students are challenged to examine the details of antiquity and to find the inspiration and practical wisdom of peoples faced with problems similar to those of today.

Courses offered by the department acquaint students with those Greek and Latin authors whose greatness stands undiminished by the judgment of time. The department concentrates on a few of these authors spanning the eighth century B.C. to the Christian era of the late Roman period. The program includes both elementary and advanced courses, with majors in either Latin or Greek. Hebrew texts are also studied in the department in recognition of their role as significant sources of ancient life. For students interested in studying the classical world from literary and epigraphical sources and in the record of its monuments, the department offers a series of courses in archaeology, from the Mycenaean Bronze Age through the late Roman Empire.

Dickinson College is affiliated with the Intercollegiate Center for Classical Studies in Rome, administered by Stanford University, and majors are thus afforded an opportunity to study within sight of the monuments themselves.

Recent graduates of the program have gone to such graduate schools as Harvard, Michigan, North Carolina, Ohio State, Princeton, Cambridge, Dublin, Oxford, and Toronto. All majors of recent years who wished to continue their education in classics have been accepted into programs of their choice. Many, however, have chosen to teach on the secondary level, and there will continue to be a need for teachers of Latin in high schools, private and public. Many students have chosen to major in classical languages as preparation for professional training, law school, theological seminary, and even medical school.

#### Faculty

Robert D. Sider, Charles A. Dana Professor of Classical Languages. D. Phil, Oxford University. He has published on the continuity of the classical tradition in early Christian literature and on the New Testament scholarship of Erasmus. Interests include late Latin, neo-Latin, and the Greek New Testament. (On leave 1996-97)

R. Leon Fitts, Asbury J. Clarke Professor of Classical Studies. Chair. Ph.D., Ohio State University. He specializes in ancient history, Romano-British archaeology, Thucydides, and Catullus. He has published on Greek history and Roman Britain, particularly on the Brigantes of that province of Rome. Fellow of the Society of Antiquaries of London

Stanley N. Rosenbaum, Professor of Religion and Classics. Ph.D., Brandeis University. He is interested in Biblical philology, especially in semantic field study. His research on the Book of Amos was recently published.

Mary E. Moser, Associate Professor of Classical Studies. Ph.D., University of Pennsylvania. Her teaching includes Vergil, Horace, Tacitus, and Juvenal, in addition to Etruscan, Roman, and Greek archaeology. She recently completed a book on Etruscan pottery; other research interests include the archaeology of prehistoric Italy.

GailAnn Rickert, Associate Professor of Classical Studies. Ph.D., Harvard University. Her teaching embraces Greek philosophy and literature, Lucretius, and Vergil. Her research specializations include ancient Greek intellectual history, ethics, and law.

Christopher A. Francese, Assistant Professor of Classical Studies. Ph.D., University of Texas at Austin. His interests include Latin literature, Roman social history, and Greek art and archaeology.

# Classical Languages

#### Greek

\*101, 102. First-Year Greek First semester: drill on the fundamentals of Greek grammar and study of vocabulary. Second semester: continuation of study of



grammar and vocabulary, with readings from selected prose authors of the 5th and 4th centuries B.C. *Please refer to Graduation Requirements (Languages)*.

111, 112. Intermediate Greek First semester: review of Greek syntax, and selected readings from the orations of Lysias. Second semester: an introduction to Homer's *Iliad* or *Odyssey*, with emphasis on the Homeric dialect and grammar. *Prerequisite: 101-102 or the equivalent.* 

221. The Greek New Testament Readings in Greek from the Gospels and the Apocalypse. Consideration is given to syntax and style, the characteristics of Koine Greek, and the thought and intention of the writers. Gospels and Apocalypse in alternate years. *Prerequisite: 102 or its equivalent.* 

222. Plato A study of Platonic dialogue, especially early and middle works. Recommended: 112 or its equivalent.

341. **Greek Drama** A study of the Greek theater, with emphasis on tragedy and comedy in alternate years. *Recommended: 222 or its equivalent.* 

342. **Greek Historians** Selected readings from Herodotus and Thucydides, with emphasis on Greek historiography. *Recommended 222 or its equivalent*.

393, 394. **Research Seminar** Readings, conferences, and research on selected areas of Greek literature. Offered every other year. Prerequisite: 221 or 222 or permission of the instructor.

#### Major

Ten courses: eight courses in Greek above 102, including one seminar (393 or 394) or one course in independent research; and two non-language, related electives approved by the classics faculty. The two electives may be taken from outside of the department.

#### Minor

Five courses in Greek above 102; and one non-language-related elective approved by the classics faculty. The elective may be taken from outside of the department.

#### Hebrew

\*101, 102. First-Year Biblical Hebrew Fundamentals of Hebrew morphology and grammar. Second term includes readings from Biblical narrative texts. *Please refer to Graduation Requirements (Languages)*.

111, 112. **Intermediate Hebrew** Review of grammar, rapid reading of selected texts; Book of Amos in the second semester. *Prerequisite: 101-102 or the equivalent.* 

**Note:** A major and minor are not offered in Hebrew. Interested students should refer to the Judaic Studies program.

#### Latin

\*101, 102. **First-Year Latin** Drill in the fundamentals of Latin grammar and the study of vocabulary. Selected prose is read in the second semester. *Please refer to Graduation Requirements (Languages)*.

111, 112. Intermediate Latin Readings from Cicero in the first semester, Vergil's *Aeneid* in the second semester. Review of Latin syntax; introduction to the style and thought of Cicero and Vergil. *Prerequisite:* 101-102 or their equivalent.

- 233. **Roman Historians** Readings from Roman historians, with particular emphasis on Livy. *Prerequisite:* 111 or 112.
- 234. Latin Poetry Terence; Catullus; Horace; Ovid. The topic varies from year to year. *Recommended: 111 or 112*.
- 331. Cicero Letters and speeches, with stress on the political life of the age of Cicero. Offered every third year. Recommended: 233 or 234.
- 332. Vergil Aeneid VI-XII, with emphasis on Vergil's poetics, especially his narrative technique. Offered every third year. Recommended: 233 or 234.
- 341. Caesar Selected books from the *Gallic Wars* and the *Civil Wars* with emphasis on the nature and purpose of the *Commentaries* as a literary type, and on Caesar as a prose stylist. The wars are studied in the context of the political events of the time. *Offered every third year. Recommended: 233 or 234.*
- 342. Lucretius The philosophy and poetry of the *De Rerum Natura*. Offered every third year. Recommended: 233 or 234.
- 351. **Tacitus** Readings in the *Annals*, with emphasis on Roman historiography, Tacitus as historian and historical source. *Offered every third year. Recommended:* 233 or 234.
- 352. **Juvenal** Reading of selected *Satires*: the genre of satire, and the nature of rhetorical poetry. *Offered every third year. Recommended: 233 or 234.*
- 393, 394. **Seminar** Readings and conferences in a special topic of Latin literature. Emphasis on research skills. *Recommended: 233 or 234*.

#### The following courses are offered abroad:

201. Greek 201/Classical Civilization 212: Greek Vistas A six-week course conducted in Greece and Crete. The course is designed to integrate study of ancient sites and artifacts with relevant readings from Greek authors. A student may elect to read those authors in either the original language (if so, he or she will receive credit for the course as Greek 201), or in English (receiving credit as Classical Civilization 212). Admission by permission of the instructor.

- 211. Latin 211/Classical Civilization 211: Roman Vistas A six-week course conducted in Italy (the Bay of Naples area and Rome). The course is designed to integrate study of ancient sites and artifacts with relevant readings from Latin authors. A student may elect to read those authors in either the original language (if so, he or she will receive credit for the course as Latin 211), or in English (receiving credit as Classical Civilization 211). Admission by permission of the instructor.
- 301. Classical Civilization 301: Fieldwork in Classical Archaeology Archaeological excavation for four to six weeks in a selected location of the ancient Greek and Roman worlds. The dig provides training for students who have had no previous experience in the techniques of field archaeology. Past excavations sponsored by the department have concentrated in Northern England, at Iron Age and Roman sites. Admission by permission of the instructor.

#### Major

Ten courses: eight courses in Latin above 102, including one seminar (393 or 394); and two non-language, related electives approved by the classics faculty. The two electives may be taken outside of the department.

#### Minor

Five courses in Latin above 102, including one course at the 300 level; and one related non-language elective approved by the classics faculty. The elective course may be taken outside of the department.

### Classical Civilization

#### Classical Literature and Mythology

100. Greek and Roman Mythology A general introduction to the texts and narratives of the chief myths of Greece and Rome and their impact on Western civilizations with special reference to the fine arts: music, sculpture, painting, and literature. This course will fulfill neither a distribution nor a major requirement.

110. Tragedy and Comedy in Greek Literature This course begins with a study of tragic and comic elements in the Homeric *Illiad* and *Odyssey*. The formal

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origins of Greek Tragedy and Comedy are then traced. There are extensive readings in the tragedies of Aeschylus, Sophocles, and Euripides, and in the comedies of Aristophanes and Menander. The course includes a careful consideration of Aristotle's *Poetics* and a review of some modern theories on the nature and significance of tragedy and comedy in ancient Greece. The literature is read in English translation. Offered every other year. This course will fulfill a literature requirement in the humanities distribution requirement.

### Classical Archaeology

221. Introduction to Greek Archaeology An introduction to the archaeology of Greece from ca. 4000 to 200 B.C. The interpretation of ancient Greek civilization from evidence of archaeological excavations and classical literature. Mycenaean and Minoan cultures of the Bronze Age period; the emergence of Greek sculpture, architecture, and pottery from the Dark Age; Athens in the Age of Pericles; Hellenistic town-planning, architecture, and sculpture. Offered every other fall.

222. Mycenaean and Minoan Archaeology An indepth examination of the cultures flourishing in the Aegean basin from ca. 4000-1000 B.C. (Neolithic through Late Bronze Age periods). Emphasis placed on the development, flourishing, and extinction of Mycenaean and Minoan cultures, as seen from the perspective of recent excavations. Special topics include the establishment of the Cyclopean citadels (including the question of who were the Shaft Grave Peoples?); the rise of Mycenaean and Minoan empires: palatial architecture, pottery, burials; domestic architecture and wall paintings from Thera, the Minoan Pompeii; and the collapse of the Mycenaean Empire (invasion of the Sea Peoples or volcanic eruption?) Offered every other spring.

223. Introduction to Etruscan Archaeology An introduction to the archaeology of ancient Italy from ca. 5000 to 200 B.C., focusing on Etruscan culture. The interpretation of ancient Italic civilization from evidence of archaeological excavations and classical literature. The settlement of Italy in remote prehistoric times; the development of metallurgy; Iron Age Italic cultures prior to and during Greek colonization of the

peninsula; Who were the Etruscans?—modern and ancient theories vs. archaeological evidence; Etruscan architecture, sculpture, painting, pottery, metalwork; Etruscan kings of Rome; political, economic, and cultural domination of early Rome. Offered every other fall.

224. Introduction to Roman Archaeology An introduction to the archaeology of ancient Italy from ca. 800 B.C. to ca. 400 A.D., focusing on Roman culture. The interpretation of Roman civilization from evidence of archaeological excavations and classical literature. Etruscan contributions to Roman culture; the foundation of Rome, or Livy vs. archaeology; the development of urban planning and architectural types (fora, temples, baths, amphitheaters, etc.); life in two small towns, Pompeii and Ostia; Roman sculpture and portraiture. Offered every other spring.

# Classical History

251, 252. **Hellenic History** First semester: a study of Minoan and Mycenean civilization, the Homeric problem and rise of the polis, the Persian Wars, and the development of Athenian democracy to 478 B.C. Second semester: Greek history from 478 to 323 B.C. *Alternates with 253, 254. Offered every other year.* 

253, 254. **Roman History** First semester: a study of the Roman state from prehistoric times to the end of the republic. Second semester: Roman history from the establishment of the Principate to the death of Constantine. Offered every other year.

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# Comparative Civilizations

Studies in Comparative Civilizations introduce the broadest possible dimension of human experience into the study of the liberal arts. Comparative study of one or more civilizations can give deeper meaning to our understanding of the cultural roots of our own traditions and increase our appreciation and understanding of those civilizations that share neither the original nor the contemporary assumptions of our own.

All Dickinson students must take one course designated a comparative civilizations course in order to graduate. These courses focus on either (a) comparisons of civilizations or of their essential components or of the historical processes by which they have evolved or disintegrated or (b) encounters between particular civilizations or between a civilization and less complex societies. In either case, at least half of the time in the course is devoted to materials from outside of the traditions that have shaped the modern West or entered into its composition. These courses are contributed to the curriculum by a wide range of departments whose disciplines lend themselves to comparative study, and the current offerings are listed each semester in the preregistration booklet under comparative civilizations sections. In addition, the following courses are especially designated as comparative civilization courses and are offered on a regular basis.

#### Courses

102. Selected Problems in Civilizational Analysis Exploration of some problem of general human significance as it has been dealt with by two or more of the world's major civilizations.

105. Non-Western Civilizations A sustained study of a particular non-Western civilization: India, China, Japan, civilizations of the Middle East, Africa, or ancient America.



200. Special Topics in Non-Western Studies Exploration of topics of general human significance as they have been dealt with in one or more of the world's non-Western civilizations.

490. Issues in Comparative Civilizational Studies A faculty-student seminar intended for the joint discussion of questions of method and substance arising in the comparative study of civilizations. *Prerequisite: Permission of the instructor(s)*.

No major or minor is offered in the program. Interested students should explore the feasibility of a self-developed major, proposed in cooperation with the Committee on Comparative Civilizational Studies.

# Computer Science

See Mathematics and Computer Science

### Dramatic Arts

Inherent in the dynamic connection between living performer and responsive audience is a celebration of the profound joy and sorrow of being human. We believe the human interaction that characterizes dramatic performance makes theatre and dance an essential activity in an increasingly technological world. The program in dramatic arts is designed to meet the needs of three crucial constituencies: future professionals in the arts, future audience members, and those students who wish to enrich their undergraduate experience through activities in theatre and dance.

The dramatic arts curriculum includes study of the practical, theoretical, literary, and historical aspects of theatre and dance. Our courses are open to all students who complete the appropriate prerequisites. Students wishing to major in dramatic arts may choose from focus areas in acting/directing, dance, and dramatic literature. A minor in dramatic arts is also offered. In addition, the Department of Dramatic Arts cosponsors Dickinson's foreign study program in East Anglia, England, which allows students the opportunity to study Great Britain's rich theatrical heritage first hand.

The Department of Dramatic Arts supports two active producing groups: the Mermaid Players and the Dance Theatre Group. Participation in these groups is open to all students. Productions are viewed as a laboratory to apply knowledge learned in class, as an enriching cocurricular activity, and as a cultural resource for the Dickinson community.

Many students active in dramatic arts at Dickinson go on to careers in law, advertising, broadcasting, film, or other fields. In addition, recent graduates have often continued to develop as theatre and dance professionals employed by Arena Stage, Center Stage, New Jersey and Texas Shakespeare Festivals, the Jean Cocteau Repertory, and others, or to continue study at top graduate programs.

#### Faculty

**Todd Wronski,** Associate Professor of Dramatic Arts. M.F.A., Trinity University. He is an actor, director, and playwright with professional credits including The Guthrie Theater and the Dallas Theater Center. His special interests include new play development and higher education's relationship to the professional theatre. (Director of Dickinson Program in England 1995-97)

Amy Ginsburg, Assistant Professor of Dramatic Arts. M.A., University of Illinois. She is a dancer and choreographer who has taught at the College of William and Mary, Mary Washington College, and the University of Maryland, and performed in Philadelphia, New York City, and Chicago. Her special interests include modern dance and the history and development of dance in American higher education. She is the department's director of dance.

Jim Lartin-Drake, Designer and Technical Director for the Mermaid Players. B.A., Dickinson College. He has taught and designed at Goddard College. His particular artistic interests are computer-assisted design and lighting.

Robert Hupp, Assistant Professor of Dramatic Arts. Chair. Certification in Acting, National Shakespeare Conservatory. He is also the artistic director of Jean Cocteau Repertory, one of New York City's leading resident repertory companies. He shares teaching responsibilities in the areas of acting, directing, voice, and theatre history. His areas of interest include classical texts and the development of new translations of European classics.

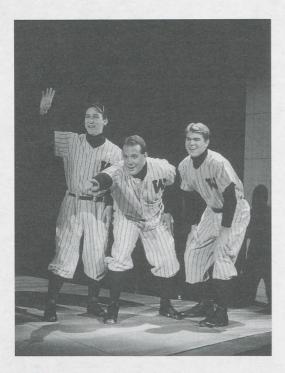
Karen Lordi, Assistant Professor of Dramatic Arts. M.F.A., Yale School of Drama. Before coming to Dickinson, she freelanced as a director in New York and Los Angeles. Her areas of interest include dance theater, cabaret and performance art, German drama and new American plays. She is also currently working on a doctoral thesis about Martha Graham.

Marcia Dale Weary, Artistic Director of the Central Pennsylvania Youth Ballet. She and the C.P.Y.B. professional staff have faculty status, and any C.P.Y.B. course in Ballet may be taken for full academic credit. Stephanie Farenwald, Adjunct Instructor of Dance, is one of Central Pennsylvania's busiest theatrical choreographers, having worked for The Actor's Company of Lancaster, Bloomsburg Theatre ensembles, and numerous schools and colleges. She teaches jazz and modern dance, and choreographs the departmental productions.

#### Courses

- 101. Introduction to Theatre A course designed to encourage an understanding and appreciation of theatre as an art form. Aesthetic foundations of theatre are explored, as well as the role of various theatre practitioners in the creation of today's theatre. The course surveys the evolution of theatre through major time periods, exposing students in the process to various types of dramatic literature and theatrical practice.
- 102. Dance and Culture Designed for students with little or no previous knowledge about dance, this course examines both theatrical and non-theatrical forms of dance in historical and cultural contexts. Through readings, discussion, lectures, studio experiences, and viewing live and videotaped performances, the course focuses on the conceptual components of dance while tracing the development of concert dance and exploring various styles and purposes of dance in society.
- 103. Theatre History An historical survey of theatre practice, primarily focused on the origins and evolution of Western theatre. Theatre's "great eras" are examined in detail, with particular attention placed on the relationship between culture and theatrical expression.
- 104. Dance History An in-depth historical exploration of ballet, modern dance, and theatrical dancing in Europe and America. The course examines the cultural forces affecting the development of these forms, their origins in Greece and Roman spectacle, and the contributions of the major figures (choreographers, teachers, etc.) in the field.
- 105. **Jazz Dance** The one-half credit studio course introduces students to the art, discipline, and movement vocabulary of jazz dance. *One-half course each semester*.

- 106, 107. **Modern Dance** Instruction in contemporary dance techniques designed to develop movement concepts and skills. *One-half course each semester.*
- 108, 109. **Introduction to Ballet** Instruction in classical ballet technique along with a study of ballet as a performing art. *One-half course each semester*.
- 110. Theatre in England A topics course in the history and performance of drama which uses performances in and expertise of the theatrical world in London as resources for its study. Taught only in the Summer Semester in England program.
- 111, 112; 211, 212; 311, 312; 411, 412. Ballet Instruction I, II, III, IV Open to students with previous experience in ballet who wish to continue ballet instruction at one of four levels: I. the basic level; II. the intermediate level, open to students who demonstrate a basic technique; III. the advanced level, open to students who demonstrate substantial technical skill; IV. the performance level, open to students competent to perform ballet. One-half or one course may be taken each semester. Placement by audition at the Central Pennsylvania Youth Ballet, where all classes are held. Each course may be repeated for credit with permission of the instructor. These courses do not fulfill distribution requirements.
- 202. Medium of Movement An exploration of physical experience as a source for artistic expression. Through assigned exercises, game structures, semi-improvisational tasks, and out-of-class projects, the student gains an understanding of the movement possibilities of the body and of their potential application to the formal disciplines of dance, music, theatre, and fine arts.
- 203. **Acting** An introduction to the principles and theories of acting combined with practical exercises and scene performance.
- 204. Composition An overview of methods of, sources for, and approaches to dance composition. In-class studies and out-of-class assignments acquaint the student with the variety of ways of discovering, inventing, and organizing movement material. It includes practical exploration both of the formal elements of dance (i.e. space, force, time) and of the interaction of movement with music, text, and props.



205. **Directing** A study of the major techniques employed by stage directors. Visual theory, text analysis, collaborative techniques, and organizational strategies are examined and applied in class exercises including the direction of scenes. *Prerequisite: 203*.

206. Topics in Design for the Theatre A studio course exploring the elements and principles of design and their application to areas selected from costume, lighting, scenic, and sound design for the theatre. Projects will focus on script analysis and research as a means of developing conceptual visions based on a text. Basic skills in drawing, painting, drafting, and model making will be developed as visual communication tools. Offered fall semester only.

208. Topics in Technology for the Theatre A course of study in the theoretical basis and practical applications of the major technologies that support contemporary theatrical and dance productions. Projects focus on design analysis in terms of physical production. In class, students explore the properties of theatrical tools, methods, and materials. The laboratory experience places this knowledge in the practical context of actual theatre and dance production. Two

major topics are examined each spring, selected from among costume shop operations, scenic construction, stage lighting execution, and sound technology application. Offered spring semester only.

302. Special Topics in Theatre and Dance An examination of selected aspects of theatrical experiment, theory, and practice. Topics chosen at the discretion of the instructor and in consultation with students, e.g., advanced study in various aspects of production, design, performance, and staging as well as special topics in dramatic literature, history, and theory.

303. Advanced Acting An in-depth examination of the process of acting. Technical, interpretive, and psychological aspects are explored through reading, exercises, and scene performances. Major theories of acting are presented and discussed in the context of developing a workable, individualized approach to acting. *Prerequisite: 202, 203*.

305. Advanced Directing An inquiry into the process of translating a play from the printed text to the live stage. Detailed analytical techniques and major directorial theories are examined through readings, class discussion, and written assignments. Each student directs a one-act production under advisement of the instructor. *Prerequisite: 205 and 206 or 208.* 

313. Theatre History Seminar An intensive investigation of theatre in its various historical contexts within a seminar structure. Selected eras of Western Theatre are examined in depth, as are various nonwestern theatrical traditions. *Prerequisites: 101 or permission of instructor.* 

The Mermaid Players Student support organization in theatre which selects schedules and produces three major productions annually in collaboration with the Department of Dramatic Arts. Membership and voting privileges are open to all students who meet established membership criteria. Auditions for productions are open to all students.

Dance Theatre Group Student support organization in dance which produces fall and spring concerts of student choreography in collaboration with the Department of Dramatic Arts. Membership and voting privileges are open to all students who meet estab

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lished membership criteria. Auditions for dance concerts are open to all students.

The Freshman Plays A program of one-act plays presented each fall by student directors with freshman students in the casts.

**Lab Shows** A laboratory program sponsored by the Mermaid Players to encourage and provide for a series of experimental productions.

#### Major

All majors take a five course "core" requirement, which includes: 101, 206 or 208, 202, 203, 205. A student may choose from three options to complete the major. For Acting/Directing Emphasis: 303, 305, 313 and two approved courses in dramatic literature, one of which must be substantially pre-1800 in its content. For Dance Emphasis: 102, 104, 204 and two course credits in dance technique. For Literature Emphasis: 313 and four approved courses in dramatic literature, at least one of which must have a pre-1800 focus.

#### Minor

Six courses, including 206 or 208, 202 and two from the following courses: 101, 102, 104, 313. Also one approved course in dramatic literature and one approved course in studio performance.

Recommended for Secondary School Theatre Teachers: 101, either 206 or 208, 203, 205.

### East Asian Studies

he East Asian Studies Department is an interdisciplinary department with a focus on East Asia, particularly on China and Japan. East Asia plays an increasingly important role in international cultural, economic, and political affairs. East Asian Studies are intended to help students put these two areas in proper perspective and give a truly international dimension to a liberal arts education. A deeply rooted and thoroughly integrated understanding of two different but related civilizations and their place in the world is provided by extensive training in their languages and literatures, and insights gained through the perspectives of the several disciplines in which courses are offered on East Asian subjects.

#### Faculty

Harry Krebs, Professor of East Asian Studies. Chair. Ph.D., Temple University. His various teaching responsibilities in different departments cover the arts, religions, and philosophies of Asian civilizations. His research interests are in Buddhist epistemology, comparative studies of aesthetic sensibilities, and modern Japanese thought.

Rui Yang, Assistant Professor of Chinese Language and Literature and East Asian Studies. Ph.D., University of Massachusetts. Her fields of specialization are pre-modern and modern Chinese fiction with emphasis on psychoanalytic criticism. Her research and teaching interests include Chinese language teaching, Chinese folklore, comparative literature, and autobiographical writing.

Wakaba Tasaka, Instructor in Japanese Language and Literature. M.A., University of Illinois at Urbana-Champaign. Her teaching and research interests include Japanese language and literature, comparative literature and film studies. Her field of specialization is psychoanalytic approach to literature and film.

Midori Yasuda, Instructor in Japanese. M.A., Univer-

sity of Wisconsin at Madison. Her academic interests lie in Japanese linguistics and language pedagogy with a focus on proficiency-oriented approach.

**Neil Weissman,** Professor of History. Ph.D., Princeton University. His areas of specialization involve the comparative history of Russia, Japan, and Germany, with emphasis on the impact of modernization on traditional societies and cultures.

**David Strand,** Professor of Political Science. Ph.D., Columbia University. His field is 20th century Chinese politics and history with related interests in comparative social and political development.

Ann M. Hill, Associate Professor of Anthropology. Ph.D., University of Illinois. Areas of specialization are economic anthropology, kinship, ethnic relations, complex societies, and the relation of language to culture. She has done fieldwork in Northern Thailand and studied in the People's Republic of China. Current research focuses on Chinese popular religion. (On leave Spring 1997)

Michael J. Fratantuono, Associate Professor of Economics. Ph.D., University of Washington. His teaching interests include microeconomic theory; international economics and the world economy; international negotiations; and the political economy of Japan and of US-Japanese relations. His research interests include the political economy of US-Japanese relations, the role of the firm in society, and teaching methods in undergraduate settings. (On leave 1996-97)

#### Courses

101. Introduction to East Asia An interdisciplinary study of East Asian civilizations. The course provides a framework for understanding by introducing students to traditional social and cultural patterns in East Asia and to the variety of transformations that have taken place there.

201. Chinese Literature This course enables students to grasp the various literary genres as they developed in Chinese history from earliest times to the present. The course also explores how that literature reflected and directed Chinese cultural concepts.



202. Japanese Literature This course is an introduction to Japanese literature from its earliest written records up to the modern era. It involves an investigation of the problems of critical literary analysis in a culture that has generated its own genres and forms as well as having borrowed extensively from those of its Chinese and Western neighbors.

203. Studies in East Asian Literature Selected topics in East Asian Literature; e.g., Chinese Women in Literature, Modern Japanese Literature, Pre-Modern Japanese Literature.

205. Studies in East Asian Humanities Selected topics in East Asian humanities: e.g., Japanese Women, Modern China through Film, Women's Images in Chinese Film, Japanese Architecture. This course satisfies the Division I.A. or Division I.C. distribution requirement, depending on topic; or Comparative Civilizations.

206. Studies in East Asian Society Selected topics in East Asian society: e.g., Modern Japanese Culture, Chinese Society, Chinese Emperors, The Chinese City. This course satisfies the Division II or Comparative Civilizations distribution requirement.

490. **Senior Research** Leading to a senior thesis and jointly supervised by at least two faculty in the program.

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11 courses.

#### **Required Courses:**

- 1. Japanese 211, 212 or Chinese 211, 212
- (Students must take three of the following four courses)

East Asian Studies 101

History 120

Religion 130

Political Science 254

3. East Asian Studies 490

**Electives:** (Students will select five of the following courses, no more than two from one group for credit toward the major.)

1. Fine Arts 208

Fine Arts 210

East Asian Studies 201

East Asian Studies 202

East Asian Studies 203

East Asian Studies 205

Religion 230

Religion 330

Philosophy 246

- 2. Japanese 231, 232, 361, 362 Chinese 231, 232, 361, 362
- 3. East Asian Studies 206

Anthropology 230

Anthropology 231

Anthropology 232

Comparative Civilizations 105 (when topic relevant)

**Economics 245** 

History 360

History 361

History 215

History 404 (when topic relevant)

Political Science 255

Political Science 290 (when topic relevant)

Other courses in South or Southeast Asia

### **Economics**

homas Malthus said almost 200 years ago, "Political economy is perhaps the only science of which it may be said that the ignorance of it is not merely a deprivation of good, but produces great positive evil." The Department of Economics offers a program of study designed to facilitate an understanding of our economy and other economic systems from divergent and critical perspectives. More specifically, the major provides a useful knowledge of the theoretical, statistical, and historical approaches to the study of a broad range of contemporary domestic and international economic problems and policy issues. These include such problems and issues as economic decision making, efficiency, unemployment, inflation, government spending, taxes, regulation, distribution of income, alienation, industrial concentration, foreign trade, and Third World poverty. In the classical liberal arts tradition, knowledge is seen as a guide to individual action and a means to improving the human condition as well as enhancing the individual.

The major in economics meets a broad range of individual needs in both career choices and graduate study. The graduate in economics will have acquired analytical skills and communicative capabilities, as well as statistical and computer skills that can provide an entree to promising careers in either the private or public sectors or to graduate study in economics, business, or law.

#### Faculty

Charles A. Barone, Associate Professor of Economics. Ph.D., The American University. He specializes in international Third World and domestic U.S. political economy with special emphasis on race, class, and gender issues. He also has major interests in women's studies, U.S. economic decline, and policy alternatives for economic revitalization. (On leave Fall 1996)

Gordon Bergsten, Associate Professor of Economics. Ph.D., University of California, Berkeley. He specializes in alternative economic systems, eco-

nomic history, and the history of economic thought. His current scholarship focusses on heterodox schools of thought and on economics pedagogy.

William K. Bellinger, Associate Professor of Economics. Ph.D., Northwestern University. His teaching interests include economic theory, labor economics, labor relations, policy and management studies, and gender. Current research interests include the economics of collective bargaining and union behavior, and the economics of public policy.

Sinan Koont, Associate Professor of Economics. Chair. Ph.D. in Economics, University of Massachusetts. Ph.D. in Mathematics, University of Wisconsin. His teaching interests include economic theory, econometrics, mathematical economics, economic development, and comparative economic systems. His current research interest is agrarian reform and macro economic policy in Central America.

Michael J. Fratantuono, Associate Professor of Economics. Ph.D., University of Washington. His teaching interests include microeconomic theory; international economics and the world economy; international negotiations; and the political economy of Japan and US-Japanese relations. His research interests include the political economy of US-Japanese relations, the role of the firm in society, and teaching methods in undergraduate settings. (On leave 1996-97)

Stephen E. Erfle, Associate Professor of Economics. Ph.D., Harvard University. His teaching interests are in applied and theoretical microeconomics, especially in the areas of industrial organization, regulation, and law and economics. His main research interests include the political economy of regulation, models of voter behavior, and the effect of advertising and the news media on consumers and firms.

Ratha T. Ramoo, Assistant Professor of Economics. Ph.D., University of California at Santa Barbara. Her teaching interests include environmental and resource economics, money and banking, and economic theory. Her primary research interest is in the area of natural resource markets and policies.

#### Courses

100. Contemporary Economics A general introduction to the subject matter and analytical tools of economics as a social science, with particular emphasis on contemporary economic issues such as poverty, inequality, unemployment, inflation, international trade, environmental deterioration, economic growth, competition, and monopoly. Designed for those not intending to major in economics or who want to find out what economics is all about. This course does not count towards the major or minor in economics. Students who have taken 111 and/or 112 cannot take this course for credit.

111. Introduction to Microeconomics A study of the fundamentals of economic analysis and of basic economic institutions, with particular emphasis upon consumer demand and upon the output and pricing decisions of business firms. The implications of actions taken by these decision-makers, operating within various market structures, upon the allocation of resources and the distribution of income are examined. Special attention is given to the sociopolitical environment within which economic decisions are made.

112. Introduction to Macroeconomics A study of the fundamentals of economic analysis and of basic economic institutions, with particular emphasis upon national output, employment, and price levels. The monetary and financial system is explored together with problems of economic stability. Monetary and fiscal policy procedures are analyzed and evaluated in light of the current economic climate. Special attention is given to the historical development of major economic institutions. *Prerequisite: 111*.

214. A Contemporary Economic Issue A current economic topic that has important public policy implications is examined. The topic, to vary from time to time, will be announced prior to registration. *Prerequisite: 111 and/or 112 or 100 depending on the topic.* 

222. Environmental Economics A study of human production and consumption activities as they affect the natural and human environmental systems and as they are affected by those systems. The economic behavioral patterns associated with the market econo-

my are scrutinized in order to reveal the biases in the decision-making process which may contribute to the deterioration of the resource base and of the quality of life in general. External costs and benefits, technological impacts, limits to economic growth, and issues of income and wealth distribution are examined. A range of potential policy measures, some consistent with our life style and some not, are evaluated. This course is also cross-listed as Environmental Studies 222. Prerequisite: 111 or 100.

223. Political Economy The theory of political economy, drawing on radical, institutional, and Post-Keynesian intellectual traditions, are explored as a way of understanding the dynamics of contemporary capitalism. Power and class conflict are examined. Applied topics are chosen from the following: race and gender oppression, economic decline and stagnation, poverty and inequality, global expansion and domination, and economic democracy. *Prerequisite: 100 recommended but not required.* 

225. Poor in America This course explores the cultural and ideological basis of American beliefs about economic inequality and poverty as well as the nature, extent, and causes of poverty. It focuses on labor markets from economics and political economy perspectives, and it covers human capital and education, job availability and skill requirements; race, class, and gender discrimination; and upward and downward mobility. The history of anti-poverty and welfare policy, as well as current policy debates, is also explored. *Prerequisite: 100 or 111 recommended but not required* 

234. Economic Anthropology An anthropological approach to economic production and exchange. Focus on non-Western societies where production and distribution of goods are institutionalized within political, religious, and kin groups. Place of markets in societies cross-culturally. Strategies of economic development and the consequences for rural poverty. This course is taught by the anthropology department and cross-listed as 334. Prerequisite: 100 or 111/112. Anthropology 101 is recommended.

236. Latin American Economics The goal of this course is to survey the economic history, environment, and institutions of Latin American countries, as well as the current problems facing Latin America and their possible solutions. Among the topics to be

considered are the region's colonial heritage, industrialization strategies, agricultural reforms, debt crises, attempts at regional integration (including NAFTA), and efforts to revise the role of the state. *Prerequisite:* 100 or 111/112.

243. The Economics of Labor Unions The exploration of the determinants of labor union power, the nature of union goals and behavior, and the impact of unions on the economy, as well as recent issues affecting the labor movement. These issues are examined through a review of historical events, the labor relations systems of other countries, and U.S. labor law, as well as institutional and neoclassical economic theory. *Prerequisite: 111*.

244. Law and Economics Economic analysis is playing an increasing role in legal thought. This course analyzes the role of government and the law in the economy, and the role of rational economic analysis in legal thought. Issues from tort, contract, property, antitrust, and criminal law are examined. Examples are drawn from the fields of pollution control, insurance, medical malpractice, and product liability. *Prerequisite:* 110 or 111.

245. The Political Economy of Japan This course examines economic and political developments that have taken place in Japan from 1955 to the present. Course topics include the record of economic growth; economic welfare; the Japanese model of political economy; Japanese-style industrial policy; industrial structure; financial markets; macroeconomic relationships and policy; labor markets; the state of technology; Japanese foreign economic policy; U.S.-Japanese economic relationships; and Japan's role in the global system.

248. The World Economy This course, designed for nonmajors, is less theoretical than Economics 348. The focus is on current trends, policies, and institutions. Topics that are explored include: the theory of free trade; protectionism; the balance of payments and the international monetary order; the Common Market; trade policy and the Third World; and imperialism and multinational corporations. Where appropriate, a variety of viewpoints will be considered. Prerequisite: 100 or 111/112. This course does not count toward the major in Economics, but qualifies for the minor.

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- 268. Intermediate Macroeconomic Theory Neoclassical theories of economic behavior in the aggregate. Models will be used as a framework for analyzing the determination of the level of national output and for explaining fluctuations in employment, the price level, interest rates, productivity, and the rate of economic growth. Policy proposals will be appraised. Prerequisite: 111 and 112 and Math 121.
- 278. Intermediate Microeconomic Theory Neoclassical theory of relative prices of commodities and productive services under perfect and imperfect competition. The role of prices in the allocation and distribution of resources and commodities. Economic behavior of individual economic units like consumers, firms, and resource owners. *Prerequisite: 112* and Math 161 or 152.
- 288. Contending Economic Perspectives A study of heterodox economic theories including radical, post-Keynesian, institutional, steady state, and neo-Austrian economics. The historical evolution of these different perspectives is traced and the core theory and methods of each is appraised. *Prerequisite: 100 or 111/112*.
- 314. **Special Topics** See Economics 214 above. Special advanced topics. *Prerequisite: 268 and/or 278 and/or 288 depending on topic.*
- 332. Economics of Natural Resources This course uses microeconomics to analyze the use and conservation of natural resources, including energy, minerals, fisheries, forests, and water resources, among others. Broad themes include the roles of property rights, intergenerational equity, and sustainable development in an economy based on resource exploitation. *Prerequisite*: 278.
- 344. Public Finance Theoretical analysis of the interaction of the public and private sectors emphasizing problems of allocation and distribution. Topics include economic rationales for government, public expenditure theory, redistribution of income, collective decision making, and taxation. Neoclassical approaches predominate; however, some alternative approaches will be explored. *Prerequisite: 278 or permission of the instructor.*

- 347. Money and Banking A study of the role of money and credit in the U.S. economy. The nature of money, the structure of the banking system in the context of a rapidly changing financial institutional environment, and the Federal Reserve System areexamined. Various theories of money as guides to monetary policy are compared and contrasted. Neoclassical approaches will predominate, although some alternative approaches will be explored. *Prerequisite: 112 or 100. Recommended: 268.*
- 348. International Economics An analysis of the determinants of international trade patterns, the causes and consequences of public policies to control trade, the operation of the international monetary system, and its effect on national economies. In addition, rich and poor country relationships, theories of imperialism, and the emerging role of multinational corporations are considered. While the neoclassical approach dominates, alternative paradigms will be explored. *Prerequisite: 268 and 278*.
- 349. Political Economy of the Third World An analysis of the causes of and proposed solutions to world poverty from an international political economy perspective. Includes a study of the colonial legacy of the Third World, underdevelopment as a regressive process, alternative development strategies, social and political structures, and simple growth and planning models. Neoclassical, structuralists, dependency, and Marxist approaches are explored. Designed for economics majors and other students interested in international studies and Latin American Studies. Offered every other year. Prerequisite: 111 and 112, or 100.
- 350. Industrial Organization and Public Policy A study of the relationships between market structure, conduct, and economic performance in U.S. industry. Emphasis will be on the manufacturing sector and specific industries will be examined. A brief introduction to antitrust and regulation is also covered. Debate within the main stream is examined. *Prerequisite: 278.*
- 351. The Economics and Politics of Regulation This course examines the political and economic underpinnings of regulation in the American economy and the economic effects of those regulations. Topics covered include the political economy of regulation, direct regulation of monopoly market, and public policy

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towards non-monopoly sources of allocative inefficiency. *Prerequisite: 278.* 

353. The Economics of Labor An analysis of labor market issues and policies. Topics covered include discrimination, anti-discrimination policy, the minimum wage, health and safety policy, and other labor market policies and institutions. While the neoclassical approach dominates, other approaches will be explored. *Prerequisite: 278 or permission of the instructor.* 

371. **Topics in Economic History** An introduction to a variety of controversial issues in European and American economic history. Topics include the transition from feudalism to capitalism, the effects of British mercantilist policies on the colonies, the economics of slavery, and what caused the Great Depression. Emphasis is on issues in 19th and 20th century U.S. economic history. A variety of theoretical perspectives are explored. *Prerequisite: 111 and 112*.

376. Alternative Economic Systems A study of the goals and means of economic systems that are fundamentally different from our own. The systems considered are both theoretical models, such as those of perfectly competitive capitalism and market socialism, and actual cases, such as the Soviet Union, China, Yugoslavia, Japan, and Cuba. Countries studied vary. *Prerequisite: 111 and 112.* 

473. **History of Economic Thought** A critical appraisal of the origins and evolution of significant economic theories. Selected writings are analyzed in detail as representative expressions of major paradigms within the discipline. *Prerequisite: 111 and 112*.

474. **Econometrics** Theory and applications of multiple regression analysis. The specification and estimation of econometric models, hypothesis testing, and interpretation of results. Emphasis is on practical applications from macro- and microeconomics using both cross-section and time-series data. *Prerequisite:* 268, 278, Math 121 and 161 or 152.

475. Mathematical Economics Selected topic, to be announced prior to registration, in theoretical or applied economics, using mathematical or statistical techniques. Prerequisite: 268 and/or 278 plus Math 161 or 152 or permission of the instructor.

495, 496. Economics Seminar A reading, research, and conference course on a selected economics topic. Student seminar choices must be approved by the department. *Prerequisite: 268, 278, and 288 or permission of the instructor.* 

#### Major

Economics 111, 112, 268, 278, 288, three other economics electives, and a senior economics seminar are required for the major. Two of the economics electives must be at the 300 level or above. In addition, majors are required to take Math 161 (or 152) and Math 121.

Students who are considering the major should begin Economics 111, 112 in their freshman year. The mathematics requirements must also be taken early in order to satisfy the prerequisites for the intermediate theory courses; see course descriptions for 268 and 278. Students intending to pursue graduate study in economics are strongly urged to complete one of the following sequences beyond the basic mathematics requirement for the major: 1) Economics 474 and 475; 2) Mathematics 261 and 262 and Economics 475.

#### Minor

Six economics courses including 111 and 112 and four other economics electives at the 200 level or above.

#### Department Honors

Any student with a 3.33 average in the major may undertake a two-course independent research project. Departmental honors will be awarded if the two courses are over and above the nine required courses, if a grade of A or A- is earned on the project, and if the departmental oral examination on the project is successfully completed.

### Education

he education department is responsible for education courses for the general student and for students seeking secondary (7-12) teaching certificates. The department believes that students are best prepared for teaching by a thorough grounding in the discipline in which they will teach. The department builds upon the prospective teacher's knowledge of this subject matter in preparing him or her for the classroom experience.

The teacher education program consists of (1) foundational coursework and (2) the professional semester in teacher education. Certification programs include biology, chemistry, earth and space science, English, environmental science, French, German, Greek, Italian, Latin, mathematics, physics, Russian, social studies, and Spanish. Majors in American studies, anthropology, economics, history, political science, psychology, Russian area studies, and sociology are eligible for the social studies certificate, although additional approved courses from each social science area are required. Foundational coursework includes:

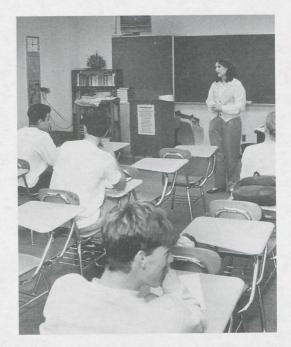
Psy. 185, Survey of Psychology, 170 Adolescence and Youth, or 201 Design of Psychological Research (majors)

Ed. 221, Social Foundations of Education

Ed. 331, Educational Psychology (Prerequisites: Ed. 221, Psy. 170, 185 or 201 and permission of instructor)

Psychology 170, 185, or 201 and Education 221 should be completed by the end of the sophomore year. Education 331 should be completed the junior year. Formal application to the program is made the semester following Education 221 or the first semester of the junior year.

The professional semester consists of courses, practicums, full-time teaching, and a professional seminar. The various components of the program are in keeping with Pennsylvania Department of Education standards, and are designed to develop the understandings, skills, and sensitivities necessary for professional teaching.



Educational Principles, Curriculum and Ed. 433, Special Methods in Subject Areas Theory and Techniques of Teaching Ed. 434, Modern Languages (one-half course for language majors) Educational Evaluation (one-half course) Ed. 443, The uses of Instructional Technology Ed. 451, (one-half course) Ed. 461-462, Observation and Supervised Student Teaching (two courses) Student Teaching Seminar (one-half Ed. 463, course)

#### Faculty

Cheri L. Quinn, Associate Professor of Education. Chair and Director of Teacher Education. Ed.D., Oklahoma State University. Teaching and research interests include educational policy and practice, teaching and learning styles, the relationship of educational history to current reforms, the uses of technology in teacher preparation, and trends in teacher education.

Robert W. Cavenagh, Jr., Director of Instructional Media, Part-time Associate Professor of Fine Arts and Education. Ed.D., Indiana University. Interests include learner control in computer-managed instruction, photographic communication, and communications technology. Research areas include learner control issues.

#### Courses

- 221. Social Foundations of Education A survey of the legal, philosophical, political, and sociological contexts of American education. Students examine the ideals and the day-to-day practices of our system through introduction to research on the following topics: competing definitions of an educated person, the university and the community college, the comprehensive high school, school politics at the local, state, and national levels, the Supreme Court and desegregation, reform movements, and the teaching profession and teachers' unions.
- 331. Educational Psychology This course combines the psychological theories of learning with current teaching practices in secondary school classrooms. Students will read, interpret, and report educational research, review models of instruction, engage in team projects, and complete a 30-hour field-based laboratory experience. The field component involves assignment with a cooperating teacher in an area secondary school. Transportation is the responsibility of the student. Learning logs, reflective journals, and directed observations accompany the field assignment. Prerequisite: Psych. 170, Education 221 and application to the certification program. In addition, students must seek an Act 34 clearance and/or FBI check and a negative TB Tine Test prior to beginning field work. Note: For those pursuing elementary certification through the Gettysburg partnership, the prerequisite in psychology is Psych 155.
- 391. Topics in Education Each semester, this course is organized around several research topics, such as: literacy and numeracy, schooling in cities, the history of Western educational thought, the liberal arts curriculum, systems of schooling in European and Asian countries, graduate and professional schools, the testing industry, political education, and the Supreme Court and public schooling. *Open to juniors and seniors*.
- 433. Theory and Pedagogy for Teaching In this practicum student teachers learn and practice the gen-

eral and discipline-specific methods for teaching in a secondary setting. Choosing appropriate materials and methods, planning for delivery and evaluation, and delivery and critique of planned lessons comprise the daily expectations in this practicum. During the block, students spend one day each week in the cooperative school setting preparing the full-time teaching experience. *Prerequisite: 221, 331, and admission to the professional semester.* 

- 434. Theory & Technique of Teaching Modern Languages This one half-credit course will introduce students to theoretical and practical aspects of teaching modern languages, with special emphasis on their place in public schools. Students will study the history of language teaching, linguistics, and secondlanguage acquisition theories, as well as the approaches, methods, and strategies in language instruction. The instructor will observe and consult with students during the students' teaching practicum. Prerequisite: 221, 331, and admission to the professional semester: one-half course.
- 443. Educational Evaluation An introduction to evaluation principles and techniques focusing upon both teacher-constructed tests and standardized measurement instruments including testing terminology, types of instruments, selection procedures, and techniques for administering, scoring, tabulating, and interpreting test data. Concepts related to reading in the content area will be included in this course. *Prerequisite:* 221, 331, and admission to the professional semester: one-half course.
- 451. The Use of Instructional Technology An introduction to devices, techniques, and media available to today's educator. Computer use is an important course component, as are video and more traditional media. Students prepare materials and gain experience through clinical workshop sessions. *One-half course*.
- 461-462. **Student Teaching** Students teach full-time for 12 weeks in the cooperative assignment. Note: the semester is one week longer for student teachers, ending on the first Friday of finals. Both the College supervisor and the cooperating teacher provide observation and evaluation of student teacher performance. Travel and personal expenses incurred are the respon-

sibility of the student. Two full courses. Prerequisite: 221, 331, admission to the professional semester, and successful demonstration of necessary teaching competencies in all block courses.

463. Student Teaching Seminar An integrative seminar devoted to the on-going study of teaching pedagogy and practical problem solving in the classroom assignment. Topics vary depending on the interests and needs of the students, but may include professional associations, content-specific pedagogy, exceptional children and inclusion issues, education resources, and classroom management. Field trips and guest lectures are expected. One-half course. Meets 13 weeks, one afternoon for two hours coinciding with student teaching. Prerequisite: admission to the professional semester.

## Major

Upon completion of the professional semester, students receive Pennsylvania's secondary school (grades 7-12) certification in their subject areas. Pennsylvania has some form of reciprocity agreement with 28 other states. The department does not offer a major or a minor. Because Pennsylvania is in the process of changing some of its certification requirements, students interested in the program should contact Professor Quinn during the first semester of their sophomore year.

# English

hy is the department that teaches courses in English, Irish, Afro-American, Native American, African, and Caribbean literatures called an "English" department? Does it matter whether Shakespeare wrote the plays that are attributed to him? Is The Scarlet Letter really a better novel than Uncle Tom's Cabin, and what do we mean by "better"? Why do the same English professors who used to hunt for symbols now also hunt for ideology? Did Mary Ann Evans really have to call herself George Eliot in order to be taken seriously? Do authors consciously intend all the meanings that college teachers and students find in their works? How does the way we read differ if we're on the beach or in the classroom? Was Mary Shelley's Frankenstein really a feminist response to Milton's Paradise Lost? Why do some literary critics claim that the author doesn't matter anymore, while at the same time books are burned and writers banished? What can you do with an English major?

These are some of the questions we ask. Questions, not settled answers, are at the center of literary studies at Dickinson. Our major emphasizes problems, issues, and approaches to literature. Our curriculum encourages students to explore both texts and their multiple contexts: historical, cultural, biographical, psychological, and political.

Students investigate the ways in which a text's meaning depends on the interplay among author, text, and reader. They ask why the highest literary merit has been awarded to the so-called "canon" of classic works. English professors teach and also question the canon by placing canonical texts in conversation with non-canonical ones: we see what happens when we read Shakespeare's *The Tempest* next to a black Caribbean writer's retelling of the play, or see what it means to read Milton in the context of Mary Shelley.

"We tell ourselves stories in order to live," writes American novelist and essayist Joan Didion. The department's goal is to help its students—majors and non-majors alike—live more reflectively and imaginatively by introducing them to the power, beauty, and passion of the written word. Because we believe that we do not possess our ideas until we express them, all

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of our courses stress writing. To aid students in becoming independent thinkers and articulate writers, we offer a sequence of courses in rhetoric, language, and expository or creative writing. Our writing and introductory literature courses, by the way, are open to all students at the College, and our advanced literature courses are open to anyone who has the prerequisite or the instructor's permission.

But what can you do with an English major? Because our graduates know how to learn, think, and write, they flourish in a variety of professions and vocations: they become writers and bankers, teachers and politicians, lawyers and environmentalists, journalists and college professors, homebodies and world travellers. Perhaps most important, they have the power to lead reflective, examined lives. Long after the last paper is written and course credit recorded, reading literature and writing keep giving our graduates the imaginative space Thoreau found at *Walden*—the space where, in his words, he learned how "to live deliberately."

# Faculty

Kenneth M. Rosen, Professor of English. Ph.D., University of New Mexico. He specializes in modern and contemporary American literature. His research has centered on Ernest Hemingway and contemporary American Indian literature.

Sharon O'Brien, James Hope Caldwell Professor of American Cultures and Professor of English and American Studies. Ph.D., Harvard University. Her teaching specialty is American literature of the 19th and 20th centuries. Research interests include women writers, popular culture, feminist theory, and the relationship between literature and society. (On leave 1996-97)

Thomas L. Reed, Jr., Professor of English. Ph.D., University of Virginia. His field is medieval literature, with special emphasis on Chaucer and Marie deFrance. Other research interests include the social contexts of English literature and the relationship between literature and cinema.

William A. Harms, Associate Professor of English. Ph.D., Indiana University. His primary field is 19th and 20th century English and European literature. Most recently, he has turned to modern drama and

the special teaching problems of relating theatre to literature. Additional interests include Irish literature and the comparison of literature to the other arts.

David L. Kranz, Associate Professor of English. Ph.D., University of California at Berkeley. His scholarship focuses on Shakespeare, in particular the playwright's representation of classical Rome and manipulation of audience. Other interests include psychological criticism, contemporary literary theory, English pedagogy, and film. (On leave 1996-97)

Robert P. Winston, Professor of English. Chair. Ph.D., University of Wisconsin at Madison. He specializes in American literature before 1914, especially the development of the early American novel. His current research focuses on the relationships between popular literature and national cultures.

Robert D. Ness, Associate Professor of English. Ph.D., University of North Carolina at Chapel Hill. He teaches Restoration and 18th century English literature, linguistics, and African and Commonwealth literatures. His research interests focus upon literature, politics, music, and other arts during the first half of the 18th century in England. (On leave 1996-97)

**B.** Ashton Nichols, Associate Professor of English. Ph.D., University of Virginia. His fields include 19th-century British literature and post-colonial literature, with special emphasis on Romantic and Victorian poetry. His current research focuses on Wordsworth and the cultural construction of the self.

K. Wendy Moffat, Associate Professor of English. Ph.D., Yale University. She teaches modern British fiction, 19th century British literature and literary theory. Her current research focuses on the history of readers in the modern period.

Sharon M. Stockton, Assistant Professor of English and Director of Writing. Ph.D., University of Washington. Her primary fields are contemporary literature and contemporary critical and rhetorical theory. Specific research interests include the modern to postmodern transition, Chicano/Latino literature, science and literature, and cultural criticism and theory.

Judy Gill, Director of the Writing Center, Instructor in English. M.A., Cornell University. Areas of interest



include writing and rhetoric and contemporary American fiction.

**Carol Ann Johnston,** Assistant Professor of English. Ph.D., Harvard University. Her teaching interests are Renaissance literature, word and image theory, lyric poetry, and Southern women writers.

Susan Perabo, Assistant Professor of English. Writer-in-Residence. MFA, University of Arkansas.

Betsy K. Emerick, Dean of Educational Services, Part-time Associate Professor of English. Ph.D., University of California at Los Angeles. Her interests include the history and theory of the novel, particularly in the late 19th and early 20th century, and 19th and 20th century English, American, and Italian literature.

#### Courses

#### **Introductory Courses**

To introduce students to serious literary study from a variety of perspectives, both intrinsic and extrinsic. Entry-level courses in the major, the first of which is also offered for students who do not intend to major in English. 101. Texts and Contexts Close reading (formal analysis) of texts interpreted in the contexts (e.g., cultural, historical, biographical, economic, political) that-shape and are shaped by them. Topics may include the African novel, early American literature, Caribbean literature, Shakespeare on film, the romance, the quest, images of women, 19th century literature, contemporary American fiction, and American Indian literature.

220. Critical Approaches and Literary Methods An introduction to the variety of basic questions that one may ask about a literary text and its audience. Study of a limited selection of texts using a number of critical approaches (e.g., formal, generic, reader-response, feminist, psychological) along with closely supervised instruction in the format and basic elements of critical writing. Prerequisite: 101. Does not fulfill the Division I. b distribution requirement.

#### Rhetoric, Language, and Writing Courses

Courses, open to majors and non-majors alike, which explore the nature of language and the rhetorical practices of expository and/or creative writing. These courses do not fulfill the Division I. b distribution requirement.

100. English Composition Especially useful to students for whom English is a second language. Semi-

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nars, small group tutorials, or individualized instruction involving closely supervised practice in effective writing, with emphasis on basic skills. *Prerequisite: permission of the instructor. Does not count toward an English major.* 

- 211. Expository Writing A course in expository prose which focuses on the writing process itself, emphasizing the organization of ideas and development of style. Seminars, group tutorials, or individual instruction.
- 212. Writing: Special Topics A course in analytical thinking and writing which develops expository skills through the exploration of such topics as literature, popular culture, sport in American life, and journalism. Seminars, workshops, group tutorials, or individual instruction.
- 213. History and Structure of the English Language The origin and growth of British and American English, along with a survey of grammatical notions and methodologies from the traditional to the transformational.
- 214. Teaching Writing: Theory and Practice Instruction in rhetorical theory and the teaching of writing. Intended primarily for training student consultants in the Dickinson College Writing Program. *Prerequisite: permission of the instructor.*
- 218. Creative Writing A workshop on the writing of fiction, poetry, drama, or the personal essay.
- 312. Advanced Expository Writing Recommended for students with demonstrated competence in writing skills, this course pays special attention to sophisticated critical analysis, development of ideas, and style. Prerequisite: permission of the instructor on the basis of a writing sample.
- 318. Advanced Creative Writing Writing and discussion of fiction, poetry, and drama. *Prerequisite: 218 or permission of the instructor.*

#### Advanced Courses in Literature, Theory, and Film

These courses represent extended discussions of the various questions that can be asked in literary studies, or expanded versions of the critical approaches that can be undertaken, and are so organized below. These

courses will often emphasize, moreover, the conflicts among different critical perspectives and may feature a number of pedagogical innovations to further that emphasis. Finally, these courses will ask students to participate, orally and in writing, at advanced levels.

- Studies in Literature and Theory (320-329) Courses that highlight one or two critical perspectives in considering a body of literature or explore one or more literary theories.
- 320. History of Literary Theory A historical survey of Western conceptions of the use and meaning of literature, from Aristotle to the present. *Prerequisite: 220 or permission of the instructor. Does not fulfill the Division I. b distribution requirement.*
- 327. **Feminist Theory** Explores the connections between gender and literary expression by considering a variety of feminist theories (e.g., literary, cultural, psychoanalytic, deconstructionist) and primary texts. *Prerequisite: 220 or permission of the instructor. Does not fulfill the Division I. b distribution requirement.*
- 329. Special Topics in Literature and Theory May include Shakespeare and psychology, word and image, the dark side of human nature, new historicism and the romantics, or Marxist approaches to the detective novel. *Prerequisite: 220 or permission of the instructor.*
- Studies in Form and Genre (330-339) Courses that focus upon the formal properties of various works, or study genres as they develop within or across historical periods and/or cultures.
- 334. **The Lyric** The lyric poem as English and American poets developed it from the 17th through the 20th century. *Prerequisite: 220 or permission of the instructor.*
- 335. Film Studies Study of classic and other films grouped in a variety of ways. Topics may include Shakespeare and the cinema, world film, and the European cinema. *Prerequisite: 220 or permission of the instructor.*
- 339. Special Topics in Form and Genre May include Renaissance tragedy, the romance, development of the novel, 17th-18th century satire and its classical models, or autobiography and memoir. *Prerequisite: 220 or permission of the instructor.*

- Studies in Literature and Culture (340-349) Courses that emphasize the interplay of texts and their cultural or multicultural contexts.
- 345. Women Writers Explores the connections between gender and literary expression by examining the social, cultural, and literary patterns linking the lives of women writers with their works. *Prerequisite:* 220 or permission of the instructor.
- 348. Native American Novel Explores the American Indian experience in the novels of such authors as Momaday, Silko, Welch, McNickle, and Allen. *Prerequisite: 220 or permission of the instructor.*
- 349. Special Topics in Literature and Culture May include new literatures in English, African writing, twice-told tales, the emergence of the novel, Irish literature, and popular literature. *Prerequisite: 220 or permission of the instructor.*
- Studies in Literature and History (350-389) Courses that focus upon the intersections and mutual influences of history and literature.
- A. Studies in Literature written before 1800 (350-359) Courses, variously configured, involving works written by a number of authors within or across a number of literary periods up to 1800.
- 350. Studies in Medieval Literature Explores texts written from the 9th to the 15th century in England and on the continent. Topics may include the medieval romance, 14th century literature, and the literature of courtly love. Formerly 201. Prerequisite: 220 or permission of the instructor.
- 352. Studies in Renaissance Literature Examines texts written in England from the late 15th to the late 17th century. Topics may include Renaissance drama, the Elizabethan sonnet, and 17th century poetry. Formerly 202. Prerequisite: 220 or permission of the instructor.
- 354. Studies in Restoration and 18th Century Literature Study of texts written in England from the late 17th to the end of the 18th century. Topics may include the poetry, drama, or prose fiction of the period. Formerly 203. Prerequisite: 220 or permission of the instructor.

- 358. Studies in Early American Literature Concentrates on texts produced before 1830 in America. Topics may include witchcraft at Salem, early American poetry, fiction in early America, and the origins of the American literary tradition. *Prerequisite: 220 or permission of the instructor.*
- 359. Special Topics in Literature before 1800 Focuses on texts and historical contexts that span the periods noted above. Topics may include medieval and Renaissance drama, images of women in medieval and Renaissance literature, Shakespeare's Chaucer, or culture and anarchy in the 18th century. *Prerequisite: 220 or permission of the instructor.*
- B. Studies in 19th and 20th Century Literature (360-379) Courses, variously configured, which involve, for the most part, works written from the early 19th century to the mid-20th century in Britain (including its empire) and the United States.
- 360. Studies in 19th Century British Literature Examines works written by a number of authors in the Romantic and Victorian eras. Topics may include Romantic and Victorian poetry and the 19th century novel. *Formerly 204. Prerequisite: 220 or permission of the instructor.*
- 364. Studies in Modern Fiction and Poetry Examines works by a number of authors in the modernist tradition. Topics may include the modern novel or modern Anglo-American poetry. *Prerequisite: 220 or permission of the instructor.*
- 366. Studies in Drama Examines the dramatic literature of the Western world from the formative period of the late 19th century to the middle of the 20th century, with emphasis on performance values and close reading of scripts. Topics may include modern drama and American drama. *Prerequisite: 220 or permission of the instructor.*
- 370. Studies in American Literature Explores texts written in America after 1830, for the most part. Topics may include the American renaissance, American autobiography, and American poetry. Formerly 205. Prerequisite: 220 or permission of the instructor.
- 374. The American Novel Examines novels by a number of authors in the context of American history. *Prerequisite: 220 or permission of the instructor.*

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- 376. The American Short Story Explores short stories by selected authors considered in the context of American history. *Prerequisite: 220 or permission of the instructor.*
- 379. Special Topics in 19th and 20th Century Literature May include romantic postmodernism, the Irish renaissance, post-colonial literature, the Edwardians, and political literature between the world wars. *Prerequisite: 220 or permission of the instructor.*
- C. Studies in Contemporary Literature (380-389) Courses, variously configured, involving works written by a number of authors from the mid-20th century to the present.
- 383. Contemporary American Fiction Study of novels, short stories, and (fictive elements in) autobiographies by contemporary Americans, with special attention to interconnections between literature and the era. *Prerequisite: 220 or permission of the instructor.*
- 387. Contemporary Drama Drama in the contemporary Western world with emphasis upon performance values and close reading of scripts. Plays by O'Neill, Sartre, Beckett, Ionesco, Pinter, Williams, Miller, Mamet, Stoppard, Fugard, and others. *Prerequisite: 220 or permission of the instructor.*
- 389. Special Topics in Contemporary Literature May include contemporary American poetry, postmodern British and American fiction, Anglo-Irish poetry, and contemporary women writers. *Prerequisite:* 220 or permission of the instructor.

#### Authorial Studies (390-399)

Courses devoted to the literary corpus of one or two authors, with special emphasis on the interaction between the authors' lives and their art, and on the question of their canonical status.

- 390. Chaucer The poet and his century, with emphasis on *The Canterbury Tales. Prerequisite: 220 or permission of the instructor.*
- 392. Shakespeare A selection of plays and poems, seen from various critical perspectives, which emphasizes the development and distinctiveness of the author. *Prerequisite: 220 or permission of the instructor.*

- 394. **Milton** Detailed study of the poetry and prose with emphasis on the development of Milton as a poet. *Prerequisite: 220 or the permission of the instructor.*
- 399. **Topics in Authorial Studies** May include Donne and Herbert, Pope, Austen in her time, Wordsworth, Willa Cather, Woolf, Hemingway and Faulkner, or Toni Morrison. *Prerequisite: 220 or permission of the instructor.*

#### The Senior Experience

This final two-semester sequence of courses in the major seeks to draw upon the student's critical and creative independence by offering seminars and workshops whose topics are shaped partly by student interest.

\*403, 404. Senior Literature Seminar and Workshop Demonstration, under close supervision, of a command of the critical reading and writing expected of a student major in English. Various topics and approaches. Each workshop requires students to share discoveries and problems as they produce a lengthy manuscript based on work in the previous seminar and on new research. Prerequisite: normally at least four courses at the advanced literature level (320-399). Open to seniors and second-semester juniors only.

# Departmental Honors

Students who want to be considered for departmental honors must be nominated by a faculty member in the department and must normally take a semester of independent research along with either the senior literature seminar (403) or workshop (404), producing, finally, a manuscript of greater depth and sophistication than that expected of other English majors. Honors are awarded by a vote of the English department faculty upon the recommendation of the two (or more) professors who direct the project and read the completed manuscript.

# Independent Research and Independent Study

Independent research is open to junior and senior majors. Independent studies in both literature and writing are open to sophomores, juniors, and seniors. The department distributes a list of professors and their specialties to assist students in developing suitable projects. Proposals are normally submitted during the semester **before** the study is to be undertaken.

#### Teacher Certification

Majors who wish to secure certification must take the following courses, preferably before enrolling in the professional semester of teacher certification: English 211, 212, or 214; English 213; English 312.

# Major

Ten courses, of which the following are required: two at the introductory level (101, 220), four advanced courses (320-399) and 403, 404. Two of the advanced courses must involve study of works created before 1800; two, of works created after 1800.

Students may declare an English major after completing the introductory courses and enrolling in at least one advanced course. When they declare, students and their faculty advisers will jointly design a schedule of advanced courses which, taking into account student interests, offers some breadth in approach and subject matter while enabling an examination of a particular area in some depth. Students will be polled before their senior experience about these areas of interest; seminars will be offered in these or related areas; workshops will group students according to their areas of interest.

Transfer students and others who need a special schedule for completing the major must have their programs approved by the chairperson.

# Minor

Six courses, including the two introductory courses (101, 220) and a minimum of three courses at the advanced literature level (320-399), at least one of which must involve works written before 1800.

# Environmental Studies

he Environmental Studies (ES) Program offers courses designed to give students a background in: (1) the natural processes working at the surface of the Earth to provide a basis for evaluation and control of environmental quality, (2) the philosophical and historical foundations for the human relationship with those processes, and (3) the economic, social, and political contexts for environmental decision making. All courses are interdisciplinary in nature, content, and approach and attempt to provide models for future alternatives. Special attention is given to field-based instruction and to collaborative research efforts among students, faculty, and the community.

Students may receive a B.A. in environmental studies or a B.S. in environmental science through the environmental studies department at Dickinson. Both majors are interdisciplinary ventures involving students and faculty from throughout the College. All students take a common core curriculum, which includes courses from environmental science, environmental ethics, environmental economics, environmental policy, and a senior seminar. Students may then choose a track in either natural science or humanities and social science, designing a cluster of courses focused around a theme of their choice to fulfill the remaining course requirements.

Throughout their stay at Dickinson, environmental studies students have an opportunity for extensive field-based studies. Courses focus on local environmental issues taking students to streams to assess the impact of pollution, to the Appalachian Trail to discuss issues of public land ownership and use, to wetlands to study delineation and mitigation procedures, to local sewage treatment plants, and to steel plants, coal mines, landfills, incinerators, and electrical generating facilities. More advanced courses include trips to Niagara Falls, NY, to visit with representatives of the chemical industry and with families who have been impacted by the Love Canal crisis and visits to Smith Island in the Chesapeake Bay to study natural ecosystems and the impact of pollution on local water-



men. Students have opportunities to do original research within the context of classes as well as independently and in collaboration with faculty. Each spring semester undergraduates in the introductory course research toxic pollution releases in communities of their choosing in one of the largest campusbased toxic waste audit programs in the nation. Interested students may go on to train local citizens to do similar waste audits in their own communities. Students may also choose to work with ALLARM (Alliance for Acid Rain Monitoring), a group of over 500 local volunteers across Pennsylvania who are monitoring streams and lakes on a weekly basis for water quality indicators. This group was founded by the environmental studies department at Dickinson and is staffed entirely by Dickinson College environmental studies students. Extensive foreign opportunties include participation in the department's semester-long program at the Center for Sustainable Development Studies in Costa Rica.

Critical goals for the program include providing a sound academic background for students; encouraging students to work in multidisciplinary research teams in real-world settings; helping students acquire both technical skills and social self confidence as they network with industry, citizen, and regulatory personnel; and building bridges between the campus and the wider community. The skills—both technical and social—are those required for the professional work toward which most aspire. This strong interdisci-

plinary undergraduate training allows students to go on to graduate school or to take jobs with government regulatory agencies, with environmental consulting firms, with industries as environmental specialists, with outdoor education and environmental education programs as environmental educators, with environmental law firms, and with non-profit environmental advocacy groups.

# Faculty

Candie C. Wilderman, Associate Professor of Environmental Science. Ph.D., Johns Hopkins University. Her specialty is the study of freshwater systems with a focus on water quality. Her current research concerns the rate and magnitude of acidification of streams in Pennsylvania as a result of acid rain, watershed assessment for land-use planning, biological monitoring of streams, diatoms as water quality indicators, urban stormwater runoff, and grassroots environmental activism. She and her students currently direct a statewide citizens' stream monitoring program. (On leave 1996-97)

Michael K. Heiman, Associate Professor of Environmental Studies and Geography. Chair. Ph.D., University of California, Berkeley. Trained as a geographer and critical social theorist, his scholarship and teaching center on environmental regulation, perception, and planning. Recent publications address the envi-

ronmental justice, risk assessment, and public participation in environmental decisions. His current research concerns hazardous waste management, grassroots environmental activism, and environmental racism, and the democratization of science.

# Contributing Faculty

- \*Susan M. Feldman, Associate Professor of Philosophy
- \*Michael Heiman, Associate Professor of Environmental Studies

Ellen Ingmanson, Assistant Professor of Anthropology Marcus Key, Associate Professor of Geology Carol Loeffler, Assistant Professor of Biology Christopher McMahon, Instructor in Political Sci-

B. Ashton Nichols, Associate Professor of English
Jeffrey Niemitz, Professor of Geology
Noel Potter, Professor of Geology (On leave 1996-97)
Theodore Pulcini, Assistant Professor of Religion
Ratha Ramoo, Assistant Professor of Economics
John Stachacz, Librarian, Library Resources (On leave Fall 1996)

Candie Wilderman, Associate Professor of Environmental Studies (On leave 1996-97)

Neil S. Wolf, Professor of Physics and Astronomy

\*Janet Wright, Associate Professor of Biology

\*Members of the Environmental Studies Steering Committee for 1996-97.

#### Courses

- 111. Environment, Culture, and Values A study of the effects of scientific, religious, and philosophical values on human attitudes toward the environment and how these attitudes may affect our way of life. By focusing on a particular current topic, and by subjecting the basis of our behavior in regard to that topic to careful criticism, alternative models of behavior are considered together with changes in lifestyle and consciousness that these may involve. This course satisfies the humanities distribution requirement.
- \*131, 132. Environmental Science An integrated, interdisciplinary study of natural environmental systems and man's impact on them. Basic concepts of ecology and energy will be examined and utilized to study world resources, human population dynamics,

- pollution, and pollution control. Field study will be emphasized. Three hours classroom and three hours laboratory a week. (131, 132 will satisfy the one-year laboratory science distribution requirement.)
- 202. Energy Resources Prerequisite: Geology 131 or Environmental Studies 132. See course descriptions with Geology 202 listing.
- 204. Mineral Resources Prerequisite: Geology 131 or Environmental Studies 131. See course description with Geology 204 listing.
- 214. **Ecological Anthropology** See course description with Anthropology 214 listing.
- 220. Environmental Geology Prerequisite: Geology 131, 132 or Environmental Studies 131, 132. See course description with Geology 220 listing.
- 221. Oceanography Prerequisite: one year of a laboratory science. See course description with Geology 221 listing.
- 222. Environmental Economics Prerequisite: Economics 100 or 111. See course description with Economics 222 listing.
- 260. Contemporary Science: Energy and the Environment See course description with Science 260 listing.
- 310. Special Topics in Environmental Science An interdisciplinary intermediate-level approach to the study of environmental problems and policy analysis. The course is project-oriented, with students bringing the experience and perspective of their own disciplinary major to bear on a team approach to the analysis and proposed resolution of an environmental problem. Topics vary depending on faculty and student interests, and on the significance of current affairs. Three hours of classroom and three hours of laboratory a week. Prerequisite: 131, 132, or permission of instructor.
- 314. **Ecology** Prerequisite: Biology 111, 112, 210 or Environmental Studies 131, 132. See course description with Biology 314 listing.
- 322. Plant Systematics Prerequisite: Biology 111, 112, 210 or Environmental Studies 131, 132. See course description with Biology 322 listing.

330. Environmental Disruption and Policy Analysis. This course examines the interrelationships of people with their environments in advanced industrial societies, studying interest-group positions and the U.S. regulatory response on air and water pollution, toxic and solid waste management, and workplace hazards. It considers the conflicts and compatibility of economic growth, social justice, and environmental quality under capitalism. Local and extended field trips emphasize the students' analysis and interpretation of social and physical parameters at waste repositories and environmental management facilities. Three hours classroom and four hours laboratory a week. Prerequisite: 131, 132, or permission of instructor. Offered every other year.

335. Analysis and Management of the Aquatic Environment. An interdisciplinary study of the aquatic environment, with a focus on the groundwater and surface waters of the Chesapeake Bay drainage basin. This course provides a scientific introduction to the dynamics of groundwater, rivers, lakes, wetlands, and estuarine systems as well as an appreciation of the complexity of the political and social issues involved in the sustainable use of these aquatic resources. Students conduct an original, cooperative, field-based research project on a local aquatic system that will involve extensive use of analytical laboratory and field equipment. Extended field trips to sample freshwater and estuarine systems and to observe existing resource management practices are conducted. Three hours classroom and four hours laboratory a week. Prerequisite: 131 or science major. Offered every other year.

406. Seminar in Advanced Topics in Environmental Studies An integrative seminar devoted to the study of the interdisciplinary techniques and approaches common to environmental problems and an evaluation of these approaches. Students will read primary literature, conduct and participate in discussions, learn how to define and execute independent research, and participate in group or individual research projects. The topic varies depending on faculty and student interests as well as scholarly concerns in the field. *Prerequisite: Permission of the instructor.* 

The following course is offered during January term only.

304. Field Study of Marine Carbonate Environments. See course description with Geology 304 listing.

# Major

Environmental Studies Major: All majors take the core curriculum consisting of: 111, 131, 132, 222, 330, 335, 406, and Math 120 or 121. Environmental Studies majors must then take an additional lab science, an internship or independent study, and four courses which form a focus cluster with any of the following themes: Analysis of Perspectives and Values, Analysis of Policies, Politics and Economics, or Regional Environmental Issues.

Environmental Science Major: All majors take the core curriculum consisting of 111, 131, 132, 222, 330, 335, 406, and Math 120 or 121. Environmental Science majors must then take Chemistry 141, Geology 131 or Biology 111-112 (depending on their focus cluster theme), and four science courses that form a focus cluster with any of the following themes: Land Resources, Water Resources, or Biological Resources.

#### Minor

The following six courses: 111, 131, 132, 222, 330 or 335, 406.

#### Teacher Certification

Students must be certified for secondary school teaching in Environmental Studies. Information can be obtained from the Director of Teacher Education.

# Off-Campus Study

Environmental Studies students are encouraged to participate in a program in Costa Rica, Central America, at the Center for Sustainable Development Studies, sponsored by the Dickinson Environmental Studies Program. Other recommended programs include the Dickinson Science Program in Norwich, England, where environmental science majors can take courses in an internationally-known environmental science program at the University of East Anglia, and the School for Field Studies which offers full-semester programs at centers around the world, focusing on biological conservation and resource management.

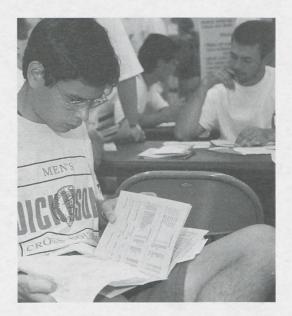
# Financial and Business Analysis

his program is grounded in the belief that Dickinson graduates will face citizenship responsibilities and leadership opportunities throughout their lives, whatever their chosen profession. In keeping with this belief, the courses below are designed to provide students with financial, management, and leadership skills that have broad applications to their personal and professional lives.

Today's graduate will probably work for a variety of employers over his or her lifetime and change careers several times. To succeed, these individuals must be able to shift focus readily, understand other cultures, think independently yet work as part of a team, engage in critical analysis, and communicate effectively. In other words, they need skills typically found in graduates with a sound liberal arts foundation. The objectives of this program are: to provide students an opportunity to enhance skills for critical thinking, effective communication, and teamwork; to familiarize students with financial management and leadership concepts, principles, and practices; to demonstrate the broad (business and non-business) applications of these concepts, principles, and practices; and to encourage self-analysis and reflection. Students learn through lecture, small group experiences, simulations, and case analysis.

Courses in financial and business analysis are electives and do not form a special program of study or major at the College. They do, however, often compliment work in other disciplines. Students wishing to undertake preprofessional preparation in business, law, and government service may find one or several courses listed below useful. Students wishing to broaden their horizons while sharpening their critical thinking, effective communications, and teamwork skills may also find one or more of these courses of value.

Students who have developed specific career objectives and think the financial and business analysis courses may be useful to them should carefully plan a well-balanced program of study in consultation with



faculty advisers. Students should also consult a preprofessional adviser where appropriate.

Dickinson College has linkage programs with two of the leading graduate programs in international management: American Graduate School of International Management (Thunderbird) and Monterey School of International Management. The College also has a linkage program with the highly respected MBA program at the University of Pittsburgh's Joseph M. Katz Graduate School of Business and with its joint Master's programs in International Business, Information Systems Management, and Health Administration. Finally, a linkage program for students interested in professional accounting has been established with the Rutgers University MBA Program for Professional Accounting. Admission to these programs is guaranteed for Dickinson graduates who meet the requirements of the specific program. Details of these programs can be obtained from the pre-business adviser or from the Office of Graduate and Professional Studies.

# Faculty

Gayle Bolinger, Lecturer in Financial and Business Analysis. MS in Management. Purdue University. CPA. Her current interests include organization culture and change, leadership, gender integration, and behavioral dimensions of accounting. 214. A Contemporary Issue A current topic that has significant implications in the public or private policy area. The topic, to vary from time to time, will be announced prior to registration. This course does not count toward distribution requirements.

227. Organizational Behavior This course looks at how human systems function within the structure of the organization and how individual and group behaviors affect collective organizational culture and its influence on organizational effectiveness: individual, interpersonal, and group processes; the relationship between attitudes and behavior; ethical decision-making; and the management of organizational conflict and change. Approaches for developing leadership, managing conflict, communicating effectively, enhancing efficiency, and encouraging organizational adaptation to changing environments are explored in a business and non-business context. This course does not count toward distribution requirements.

229. Financial Accounting Study of the basic concepts of accounting, their significance, and use. Theories and principles in recording, summarizing, reporting, and analyzing financial data. Procedures and techniques relating to income determination, asset valuation, flow of funds, and financial statement presentation. This course does not count toward distribution requirements.

230. Managerial Accounting Study of the concepts and application of accounting from the procedural and managerial approach. The accumulation of cost data for planning, controlling, and decision making. Providing information needs of internal management with emphasis on cost behavior. *Prerequisite: 229. This course does not count toward distribution requirements.* 

235. Managerial Finance An introduction to principles of financial management including concepts of risk, return, capital asset pricing model, working capital, capital budgeting, debt/equity financing, cost of capital, and dividend policy. *Prerequisite: 229. This course does not count toward distribution requirements.* 

# Fine Arts

he liberal arts, as their name implies, are fields of study that nurture the mind's freedom. Freedom—to know, to choose, to act—is one of our culture's most cherished ideals, and it endures in a special way in the activity of the artist. That repressive societies attempt to control or suppress the artist's work is no accident; this work stands for the very possibility of freedom, in the mind's ability to envision and motivate the making of tangible alternatives to ordinary experience.

Contemporary culture takes for granted the liberating effect of verbal literacy, but all too often visual literacy has been neglected, and therefore misunderstood or ignored as an exercise of intellectual freedom. This area encompasses the visible environment we create for ourselves no less than the inner world of the imagination. At Dickinson, we give full value to the sense of living tradition and the special problem-solving skills to be acquired from an understanding of the artist's work; thus, we study art seriously, historically as well as through actual making.

The art history program offers general overviews and in-depth analyses of art and its context, from its origins more than 27,000 years ago to its very latest manifestations. An extensive slide collection (over 100,000 transparencies) enables us to study this history by means of full and appropriate illustrations. In addition, the Trout Gallery provides a growing collection of actual works (approximately 6,000) as well as a regular exhibition schedule to allow students a first-hand acquaintance with and study of art from all periods and cultures. Students also benefit from internship opportunities at the gallery and at museums in Harrisburg, as well as in the Philadelphia, Baltimore, and Washington, D.C., areas.

The studio program, encompassing instruction in the principles of two- and three-dimensional art, puts the student in direct contact with artistic thinking, with its mixture of disciplined technical and formal decision making, and open-ended, inventive experimentation. Areas of special emphasis are drawing and painting, ceramics and sculpture, and graphics and

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photography, each of which poses its own challenges and provides its own remarkable satisfactions.

Students graduating with a major in fine arts have become scholars in colleges and universities and teachers in elementary and secondary schools. They also have become museum curators, professional photographers, ceramicists, medical illustrators, and art therapists.

# Faculty

Sharon Hirsh, Professor of Fine Arts. Ph.D., University of Pittsburgh. Her scholarship and teaching centers on the history of art of the 19th and 20th centuries. She is a scholar of the work of the Swiss artist Ferdinand Hodler; her current research is on social history of Symbolist art.

Barbara Diduk, Professor of Fine Arts. Chair. Surrey Diploma, West Surrey College of Art and Design, England. M.F.A., University of Minnesota. Professor Diduk is an artist who exhibits nationally; her work focuses on quasi-functional/sculptural ceramics developed from traditional vessel forms and modernist sculptural issues. She teaches courses in ceramics, three-dimensional design, and photography.

**Ward Davenny**, Associate Professor of Fine Arts. M.F.A., Yale University. Professor Davenny's works, primarily prints and drawings based on the landscape, are exhibited nationally.

Melinda Schlitt, Assistant Professor of Fine Arts. Ph.D., The Johns Hopkins University. Professor Schlitt teaches courses in art and architecture of the Italian Renaissance, Mannerism, and ancient Greek and Roman art and architecture. Her current research focuses on 16th century Italian fresco painting.

Robert W. Cavenagh, Jr., Director of Instructional Media, Part-time Associate Professor of Fine Arts and Education. Ed.D., Indiana University. In fine arts his interests are large-format photography of environmental subjects.

Peter M. Lukehart, Director, The Trout Gallery; Parttime Associate Professor of Fine Arts. Ph.D., The Johns Hopkins University. In addition to administering the College's art gallery, Professor Lukehart teaches courses in seventeenth- and eighteenth-century art and architecture, as well as the history of the artist's studio. His research focuses on seventeenth-century painting and historiography.

**Susan F. Nichols,** Associate Dean of the College, Parttime Associate Professor of Fine Arts. M.A., University of Iowa. Her primary field of study is painting and drawing.

Kim E. Banister, Part-time Instructor in Fine Arts. M.F.A., University of Cincinnati, 1984. Primary focus in figurative imagery and large-scale works on paper. Her recent work has been exhibited in group and one-woman shows.

Michael Gur, Half-time Instructor in Fine Arts. M.A., University of Illinois of Urbana-Champaign. Professor Gur's major fields are 19th century European and American art. His own scholarship investigates the art of early 19th century England.

# Contributing Faculty

Harry D. Krebs, Professor of East Asian Studies

#### Courses:

#### **Art History Courses:**

101, 102. An Introduction to the History of Art A survey of painting, sculpture, and architecture of western civilizations. 101 surveys art from the ancient Near East through medieval European. 102 surveys art of the European renaissance through the contemporary period. (Either course satisfies Division I. c. distribution requirement.)

201. History and Art of the Film or the Photograph A study of the history of the film or the photograph as an art form involving mechanical reproduction. Issues of criticism and theory are also addressed. (*This course satisfies the Division I. c. distribution requirement.*)

202. Ancient Art This course focuses on painting, sculpture, and architecture of ancient Greece and Rome. Emphasis is placed on understanding changes in form and function within an historical and critical framework. Issues of patronage, restoration, and contemporary scholarly debates are also discussed. Prerequisite: 101 or permission of the instructor. Offered alternate years.

203. Medieval Art European art and architecture of the Middle Ages, from the decline of Rome to the first decades of the 15th century. Particular emphasis is placed on Romanesque and Gothic cathedral architecture. Prerequisite: 101 or permission of the instructor. Offered alternate years.

204. American Art The development of architecture and painting in America. Special consideration is given to 19th century architecture, with field work in Carlisle, and to recent, specifically American, movements in 20th century painting. *Prerequisite: 101 or 102, American studies majors, or permission of the instructor.* 

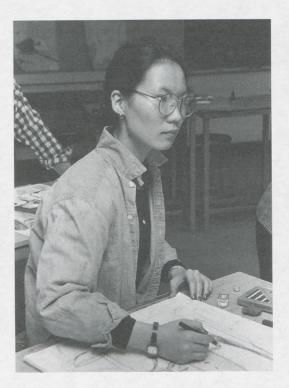
205. **Topics in Art History** An intermediate-level study of selected topics in the history of art and architecture. *Prerequisite: 101 or 102, as appropriate to the topic, or permission of the instructor.* 

207. Criticism and Theory in the Arts An introduction to critical strategies in and theoretical approaches to the visual arts. Particular emphasis is placed on close analysis and discussion of texts. The course addresses issues of historiography (history of writing about art), critical theory, or contemporary art criticism. *Prerequisite: 101 or 102 or permission of the instructor.* 

208. Japanese Art This course is an introduction to Japanese art and aesthetics throughout the history of this culture. The study of this art occurs in the context of the civilization as a whole, as it has both changed and resisted change over time due to both internal and external forces. Students are expected to look carefully at their own preferences and prejudices with the intention of seeing them from an additional perspective. Offered alternate years. (This course satisfies the Division I. c. distribution requirement.)

210. Chinese Art This course is an introduction to the history and aesthetic of Chinese art. The art is studied as a primary part of the larger culture. Other elements of the culture are introduced as they are relevant to seeing the civilization as a whole. The subject matter is those arts most typical of the major dynasties, but painting is the primary overall focus. Offered alternate years. (This course satisfies the Division I. c. distribution requirement.)

300. Italian Renaissance Art 1250-1450 A survey of painting, sculpture, and architecture in Italy from



approximately 1250 to 1450. The works of Giotto, Pisano, Donatello, Ghiberti, Brunelleschi, and Massacio, among others, will be addressed. Issues of style, patronage, and function will be considered within the political and cultural contexts of the 13th through 15th centuries. Critical and theoretical writings of the period will also be discussed. *Prerequisite: 101 and 102 or permission of the instructor.* 

301. Italian Renaissance Art 1450-1563 A survey of painting, sculpture, and architecture in Italy from 1450 through 1580. The works of Botticelli, Leonardo, Raphael, Michelangelo, Bramente, and Titian, among others, will be addressed. Issues of style, patronage, and function will be considered within the political and cultural contexts of the 15th and the 16th centuries. Critical and theoretical writings of the period will also be discussed. *Prerequisite: 101 and 102 or permission of the instructor.* 

304. Southern Baroque Art Painting, sculpture, and architecture of the 17th-century in Italy, France, and Spain will be considered. Artists included in this course are: Caravaggio, the Carracci, Reni, Artemesia Gentileschi, Bernini, Borromini, Velásquez, and

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Poussin. Issues of theory and criticism will also be addressed. Prerequisite: 101 and 102 or permission of the instructor. Offered alternate years.

- 306. Northern Baroque Art A study of 17th-century Northern European Art with particular emphasis on Flemish and Dutch painting. Artists included in this course are Rubens, Van Dyck, Rembrandt, Hals, and Vermeer. Issues of theory and criticism will also be addressed. Prerequisite: 101 and 102 or permission of the instructor. Offered alternate years.
- 313. 19th Century Art Issues of romanticism, realism, impressionism, and post-impressionism. Major 19th century European figures and movements will be surveyed. Critical and theoretical writings of the period will be discussed. *Prerequisite: 101 and 102 or permission of the instructor.*
- 314. 20th Century Art A survey of major artists and movements from 1905 to the present, including expressionism, cubism, futurism, de Stijl, dada, surrealism, abstract expressionism, pop art, minimalism, hyper realism, neo-expressionism, and recent developments through post-modernism. Critical and theoretical writings of the period will be discussed. *Prerequisite: 101 and 102 or permission of the instructor.*
- 315. **Topics in Contemporary Art** This course will address recent developments in art from 1945 to the present; focus on particular artists, works, and movements will vary. Critical and theoretical issues of the period will be discussed. *Prerequisite: 102 or permission of the instructor*.
- 391. Studies in Art History Studies in selected topics of the history of art and architecture. The content of each course will be altered periodically. *Prerequisite:* 101 and 102 or permission of the instructor.
- 404. Seminar: Topics in the History of Art Advanced investigation of a particular artist, work, movement, or problem in the history of art. *Prerequisite: permission of the instructor*.
- 407. Art Historical Methods Study of the research tools and methodologies of art historical analysis, a study of the use of primary and secondary sources, and documents in art history. In addition, the major schools of art historical writing and theory since the

Renaissance will be considered. The course has as its final project an exhibition curated by the seminar students. Prerequisite: 101 and 102, as well as other upper-level courses on art of the Renaissance to the present. Strongly recommended for art history majors.

#### **Studio Art Courses:**

- 122. Fundamentals of Composition and Drawing Working from observation and using a variety of media, this basic studio drawing course will explore issues common to both representational and non-representational art. This course serves as the foundation to upper-level two-dimensional offerings.
- 123. Fundamentals of Sculpture and Three-Dimensional Design A studio course covering basic elements of three-dimensional composition and sculpture. Students will construct sculptures examining a range of media and fabrication techniques.
- 160. **Special Topics in Studio** Selected techniques and concepts in studio, taught at the introductory level. The content of each course will be altered periodically.
- 221. Introduction to Photography An entry-level course in black-and-white photography. Film developing and the making of prints using conventional media, and an exploration of other media and processes which may include high contrast, large format, hand-tinted works, introductory color and alternative processes. The student will be required to demonstrate attainment of skill through portfolios presented to the class.
- 222. **Drawing** A studio course to explore further, those issues covered in 122, but focusing on the creation of light and space. Landscape, architecture, stilllife and the model will serve as subject matter. A large variety of media will be used, including pastel, monotype, ink, acrylic paint and charcoal. *Prerequisite: 122 or permission of the instructor.*
- 224. Wheelwork Ceramics A studio course exploring expressive possibilities offered by the potters wheel. Students will examine both utilitarian and sculptural aspects of the medium. A variety of clays, glazes and firing approaches will be examined.

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- 226. Sculpture Ceramics A sculpture course further examining three-dimensional problems covered in the basic three-dimensional design course. The course will focus on clay as the primary (but not exclusive) fabrication material. Students will examine a range of firing, glazing, and construction techniques. *Prerequisite: 123, 224 or permission of the instructor.*
- 227. Fundamentals of Painting A basic studio course exploring the techniques, practices and history of painting and theories of color. Working from observation, subject matter will range from still-life and landscape to architecture and the figure. *Prerequisite: 122 or permission of the instructor*.
- 228. **Printmaking Survey** A studio course in which students will gain a working knowledge in each of the four major areas of printmaking--woodcut, etching, lithography, and screenprinting. *Prerequisite: 122 or permission of the instructor.*
- 230. Life Drawing The course will be devoted to working from the human form during which the students will be expected to develop a sense of two-dimensional line and three-dimensional illusionistic form through the use of such graphic media as pen and ink, pencil, charcoal, Conté crayon, etc. *Prerequisite: 122 or permission of the instructor*.
- 320. **Advanced Photography** Topics and techniques in photography which extend beyond the entry course. Each student will select an area in which to build a body of work. *Prerequisite: 221. Offered alternate years.*
- 323. **Sculpture** Various sculpture media will be explored including clay, plaster, wood, stone, and metals. An emphasis will be placed on carving, casting, and metal welding. *Prerequisite: 123*.
- 324. Advanced Three-Dimensional Design and Sculpture A second level three-dimensional design and sculpture course concentrating on advanced fabrication techniques, alternative building materials, and aspects of contemporary and historical practice. *Prerequisite:* 123, 224, 226 or permission of the instructor.
- 326. Intaglio Printmaking An in-depth exploration of etching, engraving, aquatint and other techniques of

- drawing on, and printing from metal plates. Photoetching and working in color will also be covered. *Pre*requisite: 122 or permission of the instructor.
- 327. Advanced Painting A second-level studio painting course concentrating on the figure, and covering advanced techniques, alternative materials, and aspects of contemporary and historical practice. *Prerequisite:* 227.
- 330. Advanced Life Drawing Advanced problems and issues in drawing the human form. *Prerequisite: 230 or permission of the instructor*.
- 335. Lithography A studio course exploring the art, techniques, and history of drawing and printing from the stone. Metal plate, color, and photo-lithography will also be explored. *Prerequisite: 122 or permission of the instructor.*
- 360. Advanced Studio Selected advanced studio techniques and concepts. The content of each course will be altered periodically. *Prerequisite 122, 123 or permission of the instructor.*
- 410. Senior Studio Seminar A required course for senior studio students. Critiques of students' work will include examination of timely topics in the visual arts and the relationship of the artist to society. Critiques, selected critical readings, museum visits and visiting artists will provide the basis for discussion. Co-requisite: One studio course. Prerequisite: One studio course.

# Internship

Through the Trout Gallery and other regional museums, galleries, art associations, commercial galleries, and architectural firms the fine arts department offers internships to advanced students. In the past, art history majors have undertaken museum internships at The Metropolitan Museum, the Springfield (MA) Museum of Fine Arts, and the Philadelphia Museum of Art, while studio and art history majors have interned at commercial galleries in Philadelphia, Harrisburg, and New York City; these internships have included conservation and restoration work. Consult the departmental internship adviser and the College internship coordinator.

Art History option: Eleven courses including 101, 102; one course in studio, either 122 or 123; one course in Ancient Art, either 202 OR either Classical Studies 221 or 224; one course in Renaissance Art, either 300 or 301; one course in Modern Art, either 314 or 315; 407; 207; and three electives in art history. Art history majors are also encouraged to take additional course work in Philosophy, Religion, Classics and studio art; to consider internships or independent studies directed to future interests in the discipline; and to take German if they are considering graduate work in art history.

Studio Art option: Eleven courses including 101, 102; one course in Renaissance Art, either 300 or 301; one course in 20th-century Art, either 314 or 315; 122; either 222 or 230; 410 (including submission of position paper and portfolio for graduation); and four additional studio courses, including one at the advanced level, and at least one three-dimensional course. Seniors concentrating in studio are required to present a portfolio of their work or an exhibition at the discretion of the department. Students electing this option are also encouraged to take 20th-century Art in the junior year, take more studio courses than the required six, and produce a senior exhibition of work. Self-developed options, including conservation and architecture programs, can be arranged.

# Minor

101 and 102 plus four additional courses in the appropriate discipline (art history or studio), subject to the minor adviser's approval, that suit the particular interests of the student.

The following course is offered in the Summer Semester in England Program:

105. Art in England A topics course in the history and practice of art, using the galleries, museums and architecture of London and its environs as its focus.

#### The following course is offered in Bologna:

132. The Arts of Italy An introduction to the major visual traditions of the Italian peninsula from antiquity to the end of the 18th century, combined with the basic art historical methodologies necessary to their

understanding. Focus will be on the relationship of visual materials to their intellectual, social, and religious underpinnings, with special emphasis on the artistic traditions and monuments of Bologna. Lectures, discussion, and site visits provide the opportunity to understand artistic production in its larger cultural context. In addition to regular class meetings for lecture and discussion, required group excursions in and around Bologna will be scheduled occasionally on Fridays or Saturdays.

#### The following courses are offered in Toulouse:

115. French Art from the Romanesque through the Baroque This course will examine the development of medieval art, architecture and sculpture in the romanesque and gothic styles, drawing principally on regional examples. The wealth of Roman remains in southwestern France will help clarify connections between medieval art and its ancient predecessors. Classroom lecture and discussion will be augmented by on-site study of churches, cloisters and museums in the Toulouse area. Outstanding examples of private dwellings in Toulouse dating from the Renaissance will illustrate the passage between the end of the Middle Ages and the following periods. Issues of style, patronage and function will be considered with the political and cultural contexts of the 11th through the 18th centuries. Offered only at the Dickinson Study Center in Toulouse.

116. French Art of the 19th and 20th Centuries A survey of the major movements in French art from Romanticism to the present, including realism, impressionism, cubism, Dada, surrealism and abstract art. Contemporary museum collections in France, particularly those in the Toulouse region and in Paris, will furnish examples of important works. This course will pay special attention to the links between change in French society and the evolution of artistic production. Offered only at the Dickinson Study Center in Toulouse.

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# French and Italian

ourses in French and Italian at Dickinson are designed to provide far more than language acquisition. The department believes that foreign language learning at the college level is not an end in or by itself. While we do provide language training through sources which are oriented toward an understanding and use of the written and spoken modern idiom, we also rely on that language background to cultivate in students an appreciation of French and Italian literature and civilization.

Students who elect to minor in French will be prepared to apply their background in French language and culture to related topics in other fields, such as history, international relations, or political science. The graduate French major will be, ideally, a person familiar with the great moments and movements of creative literary expression in the French tradition, proficient in the tools of literary analysis necessary for a deeper understanding of self and world, and conversant with the structure of a society different from his or her own. A French major or minor at Dickinson is thus a person who sees the world through two sets of eves: those of his or her native culture and those provided by balanced training in French language, literature, and civilization.

After the elementary-course sequence, which introduces students who do not already have this background to the fundamentals of the language and culture, intermediate courses lay the foundation for a solid minor or continuation towards the major with emphasis on continued acquisition of functional oral and written language skills, together with an introduction to major French literary and cultural phenomena and the tools to analyze them. Armed with this background in breadth, advanced students pursue courses in depth selected from a wide array of more specialized topic areas in literature, civilization, and language pedagogy. Thus, while encouraged towards a choice of advanced courses that, taken together, form a fair representation of the content considered integral to the discipline, majors may also add informal emphasis to the structure of their program according to their own personal preferences and career aspirations.

The department offers an interdisciplinary major in Italian Studies and a minor in Italian. The Italian program is designed to introduce students to different fields of expertise, all related to specific aspects of Italian culture and civilization. The program includes work in the Italian language and literature as well as courses offered by other departments. It should be of special interest to those planning to study in Italy, particularly with the Dickinson Program in Bologna.

The department encourages study abroad. The Dickinson College Study Center in Toulouse, France offers a year abroad, so that students may deepen their knowledge of French language, literature, and civilization. Combining the quality of undergraduate instruction at Dickinson with the unique study opportunities of France's second-largest university, the program offers a core of Dickinson courses plus enrollment opportunities in the humanities, social sciences, and mathematics at the University of Toulouse. In addition, the department offers a five and one half-week summer immersion program in Toulouse and a fourweek summer immersion program in Bologna.

The department also sponsors the French house and the Italian house. All students interested in French and Italian language and culture may request to live there after the freshman year. Each year two French students and one Italian university student live in the houses and act as resource persons for programs and activities. These usually include lectures, films, slide shows, and discussions. In addition, the department sponsors a French club and an Italian club, as well as weekly French and Italian tables in the Holland Union, where students interested in these languages meet over a meal with friends and faculty for informal discussion.

Because French and Italian studies at Dickinson are liberally oriented, providing skills and knowledge that can be applied to any field requiring critical thinking and an analytical mind, recent graduates with a major or minor in French or Italian studies have gone on to further studies or employment in a wide variety of areas. These include graduate studies, teaching, law, publishing and editing, interpreting, personnel work, and a multitude of positions in international business or banking concerns.

# Faculty

Michael B. Kline, Professor of French. Ph.D., Brown University. His scholarship has focused on 19th and 20th century French literature, particularly Balzac and the mythopoesis of culture in crisis, and the 20th century theatre with emphasis on the theatre of the absurd. His current research involves the rhetoric of humor in social context, using the work of Flaubert as a point of departure. (On leave Spring 1997)

Nancy C. Mellerski, Professor of French. Chair. Ph.D., University of Chicago. She specializes in French literature of the 20th century, particularly the evolution of the modern novel and narrative theory, and in French cinema. Her most recent research and publications are in the fields of film, comparative detective fiction, and Marxian analyses of popular culture.

Sylvie G. Davidson, Associate Professor of Romance Languages. Doctorat de Troisième Cycle, Université de Montpellier. Coordinator of Italian Studies. Her scholarship has concentrated on French and Italian literatures, fine arts, and music of the Renaissance and 17th century. Her current research examines French and Italian festivals of the Renaissance and their ideological meaning. (On leave 1996-97)

Catherine A. Beaudry, Associate Professor of French. Ph.D., Columbia University. Her scholarship has focused on 18th century French literature, particularly Jean-Jacques Rousseau and the advent of autobiography in modern culture. Her current research involves reader-oriented criticism and the use of Speech Act Theory in literary analysis. (Director, Dickinson College Study Center in Toulouse, 1995-97)

Helen Harrison, Assistant Professor of French. Ph.D., Columbia University. Her scholarly research concerns 17th century French theater, with particular attention to the interplay of money and language as media of exchange and indicators of social status.

Tullio Pagano, Assistant Professor of Italian. Ph.D., University of Oregon. His scholarship centers on the relationship between Italian and other European literatures at the end of the 19th century. Other scholarly interests include 20th century poetry, film and literary theory, and language pedagogy.

Paul H. M. Oorts, Assistant Professor of French and Italian. Ph.D., Penn State University. His doctoral research focused on cross-cultural adaptation of narrative, more specifically the theme of the Trojan War as

it was translated from Classical Antiquity into the medieval and Renaissance literatures of Western Europe and beyond. He has done work in Latin and French paleography and has a personal interest in general mythology.

**Debra L. Terzian**, Assistant Professor of French. Ph.D., Brown University. Her scholarship focuses on 19th century French fiction, especially the novels of Sand and de Staël, Her research interests include women's writing and psychoanalytic literary criticism.

**Dominique A. Laurent,** Instructor in French, M.A., Vanderbilt University. His doctoral research concerns French media coverage of U.S. policy during the Indochina War.

David Paoli, Instructor in Francophone Studies. M.Ed., Stanford University. His doctoral research focuses on education and cultural diversity in contemporary France. His teaching and research interests include Francophonie (particularly Meghrebin literature and civilization), immigration and literature, education and immigration. Other interests include foreign language teacher education and global education.

John S. Henderson, Director of Off-Campus Studies, Part-time Associate Professor of French. Ph.D., Brown University. His current research centers on intercultural communication and education. Secondary interests are 18th century French literature, particularly Voltaire, the evolution of the theatre, and the history of ideas prior to the French Revolution.

Marjorie A. Fitzpatrick, Administrative Coordinator for Internships, Part-time Associate Professor of French. Ph.D., University of Toronto. Québécois civilization, particularly history and politics, is her primary research area, followed closely by French-Canadian/Québécois literature. Other scholarly interests include francophone societies and cultures, and 17th century French literature.

# French

\*101, 104. Elementary French Complete first-year course. Intensive study of the fundamentals of French grammar, with special attention given to pronuncia-

tion and oral expression. Cultural readings in the context of language acquisition. *Please refer to Graduation Requirements (Languages)*.

116. **Intermediate French** Intensive second-year study of French, with attention to grammar review, conversation, reading in a cultural context and some writing. *Prerequisite: 104 or the equivalent.* 

104/116. Accelerated French An intensive, ten hour per week intermediate French course designed for freshmen who place into 104 on the departmental placement examination and who wish to complete the language requirement in one semester. Especially helpful for those contemplating study abroad, this course makes extensive use of multi-media and interactive computer strategies in the development of conversational and cultural skills. Two Courses. *Prerequisite: 101 or the equivalent.* 

231. Written Expression A writing-intensive course directed towards improvement of stylistic skills. Some review of grammar insofar as it is a tool to achieve course goals. Writing assignments to include compositions, journals, prose style analyses, pastiches, and translations. *Prerequisite: 116 or the equivalent.* 

232. **Oral Expression** Emphasis on use of the spoken language within the context of daily French civilization. Intensive participation intended to encourage increasing freedom of oral expression, particularly as applied to those areas of intercultural communication of value to Americans who will be living or working in France. *Prerequisite: 116 or the equivalent.* 

233. Introduction to French Literature Provides the student with the tools necessary for an analytical approach to the study of French literature, through the examination of selected works. Emphasis on explication de textes, various genres and methods of criticism. Prerequisite: 231 or the equivalent, or permission of the instructor. Required of French majors.

235. Contemporary French Culture This course is designed to give students an understanding of the main elements of contemporary French culture. Focusing on political, social, and economic topics such as French government, immigration, France's place in a United Europe, the course should facilitate acculturation in France or provide an academic substitute for that experience. *Prerequisite: 231*.

255, 256. French Literature and Society A historically differentiated interpretation of French culture through examination of French literature from the Middle Ages to the present in conjunction with study of political, economic, and social structures of each period. Intellectual and artistic currents that inform and are informed by these structures. Introduction of new critical perspectives such as psychoanalytical and structuralist literary theory. *Prerequisite: 233 or permission of instructor.* 

346. La Francophonie Introduction to French-speaking civilizations outside France, and in-depth study of French Canada. Historical, political, and cultural problems of minority Francophone cultures. Offered every other year. Prerequisite: 256 or at least a semester in Toulouse or the equivalent.

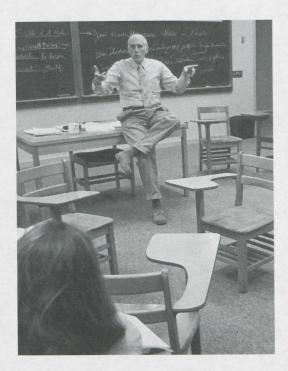
352. The Theatre of the Sublime The search for perfection in classical France. Molière, Corneille, Racine, and brief extracts from some of the major moralistes. Offered on occasion as a bilingual course in French and English. Offered every other year. Prerequisite: both 255 and 256, or the equivalent, or permission of the instructor.

354. Reason and Revolution The Enlightenment: a century of intellectual ferment which challenged the values of the establishment and swept them away in a revolution. Montesquieu, Voltaire, Diderot, Rousseau. Offered on occasion as a bilingual course in French and English. Offered every other year. Prerequisite: both 255 and 256, or the equivalent.

357. Romantics, Realists, and Rebels 19th century French novel and poetry. An investigation of the major literary movements and authors of the century, to include the theory and practice of romanticism and realism in French letters; reaction to society by authors in revolt against bourgeois standards, and in pursuit of new modes of literary expression. Offered every other year. Prerequisite: both 255 and 256, or the equivalent.

358. French Novel in the 20th Century Self-scrutiny in the novel. A study of the theory and the evolution of the modern French novel and a critical reading of selected works from the writings of novelists from Proust to the *nouveaux romanciers*. Development of the novel as a form in this century, aesthetic and philo-

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sophical concerns, and consideration of the novel as a self-conscious genre. Offered every other year. Prerequisite: both 255 and 256, or the equivalent.

361. French Literature in the Renaissance Major works from prose, poetry, and theatre, with particular emphasis on Rabelais and the development of humanism, the theory and practice of the Pléiade, and Montaigne. Offered every other year. Prerequisite: both 255 and 256, or the equivalent.

362. Seminar in French Literature A thorough investigation of a major figure or important literary trend (chosen at the discretion of the instructor and in consultation with the majors) in French literature with emphasis on seminar reports and discussion. Recent themes have been: evil, seduction, the fantastic, surrealism. Offered every year. Prerequisite: priority given to seniors in French or permission of instructor.

364. **Topics in French Literature** In-depth analysis and discussion of selected areas and problems not normally covered in other advanced offerings. Past topics have included: Women in French Literature, Theatre of the Absurd, French Autobiography. *Prerequisite: both 255 and 256, or the equivalent.* 

365. Seminar in French Civilization Investigation of a broad theme or selected area of French civilization through pertinent readings, media forms and research in both literary and non-literary materials. Past topics have included: French Political Culture, and Permanence and Change in French Society. Offered every year. Prerequisite: 256 or at least a semester in Toulouse or the equivalent. Priority given to seniors in French or permission of instructor.

The following courses are offered in Toulouse, the prerequisite for which is French 233, except for French 220:

220. Language and Civilization Immersion An intensive language and civilization course designed to increase oral proficiency, improve written expression, and develop cross-cultural observation skills through immersion in the Toulouse region. Social and cultural phenomena will be studied through interaction with French families, directed observation at historic sites, participation in class activities and tutorials. All components of the course are designed to facilitate acculturation. The exclusive use of French during the five and one-half week immersion is expected of all students. Evaluation is based on a combination of the following: interviews with the instructor, performance in the class, journal writing, and a final summary of the immersion experience. Offered only in summer at the Dickinson Study Center in Toulouse. Prerequisite: 116 or its equivalent and acceptance into the French Summer Immersion Program. Not intended for students who have completed French 233 or above.

255, 256. French Literature and Society See description page 88.

260. Stylistics and Argumentation This two-part course offers practice in lexical expansion, idiomatic expression and syntactical patterns through exercises in translation, sentence analysis, reading comprehension and composition. Building upon these skills, students are introduced to French university methods of argumentation, principally through practice in four forms of written expression: résumé, dissertation, explication de texte, and commentaire composé. Offered only at the Dickinson Study Center in Toulouse.

264. Intensive French Expression This course utilizes audio and visual material to prepare students

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studying in Toulouse for active participation in the French cultural and linguistic environment by contextualizing a review of French grammar. Offered only at the Dickinson Study Center in Toulouse for spring semester students only. One-half course credit.

270. Social Context of the French Language The culturally determined nature of language studied in its social context. Theory and practice of the conventions of discourse, review of key elements of French grammar, and other linguistic phenomena within the practice of language. Texts, video presentations, and field observations will be employed to improve oral and written style as well as to examine the social nature of language. Offered only at the Dickinson Study Center in Toulouse. Prerequisite: 233.

273. Topics in Applied French Continued study of the French language designed to take advantage of issues of current interest in French society or culture (e.g., electoral seasons, important historical commemorations, current social or cultural controversies). Ample opportunity for written work and discussion of the topic chosen. Offered only at the Dickinson Study Center in Toulouse. One-half course credit.

292. French Phonetics This one-half credit course provides intensive practice and review of the norms of appropriate speech behavior, including such aspects as pronunciation, intonation, liaison, rhythm, and phrasing. Offered only at the Dickinson Study Center in Toulouse. One-half course credit. Prerequisite: 233.

318. Studies in Intercultural Communication Contemporary French society examined through theoretical reading and discussion as well as directed experiential observation. Explicit reference to French and American perceptions of cultural concepts so as to provide ideas, insights, and methods by which to understand and analyze the two societies. Readings, reports, discussions, field projects, and use of local resources comprise the work of the course. Offered only at the Dickinson Study Center in Toulouse.

# Major

Ten courses beyond the 100 level, including 233, 255, 256; two 300-level courses taken on the Dickinson campus, one of which must be a senior seminar.

## Minor

Five courses beyond the 100 level, including 233, 255, 256.

# Italian

\*101, 104. Elementary Italian Intensive study of the fundamentals of Italian grammar, with a view to developing reading, writing, speaking, and understanding skills. Laboratory and other audiovisual techniques are used. Cultural elements are stressed as a context for the assimilation of the language. Please refer to Graduation Requirements (Languages).

116. Intermediate Italian Intensive introduction to conversation and composition, with special attention to grammar review and refinement. Essays, fiction and theater, as well as Italian television and films, provide opportunities to improve familiarity with contemporary Italian language and civilization. Prerequisite: 104 or the equivalent.

231. Written Expression and Textual Analysis Designed to increase student's awareness of various rhetorical conventions and command of written Italian through analysis and imitation of model texts of a literary and non-literary nature. Prerequisite: 116 or the equivalent.

232. Oral Expression Designed to increase student's comprehension and command of spoken Italian, this course is also an initiation in everyday verbal transactions and cultural communication prevalent in contemporary Italy. Phonetics, oral comprehension, and verbal production are practiced through exposure to authentic documents usually of a non-literary nature, such as television news programs, documentaries, commercial advertisements, and excerpts from films. Prerequisite: 116 or the equivalent.

251. Literature and Society I An interpretation of Italian culture from the 14th through the 17th century by examination of representative literary works. This course will attempt to situate individual authors in the European literary tradition and will examine the interaction between literary production and political, economic, and social trends of the period. Prerequisite: 231 or the equivalent.

252. Literature and Society II Selected readings of literary texts examining the changes in political, economic, and social structures in Italian society from the 18th century to the post-fascist era. Particular emphasis on intellectual trends, artistic currents of the period and their relationship to literature. *Prerequisite: 231 or the equivalent.* 

320. **Topics in Italian Studies** Study of significant themes and values that inform Italian culture and are informed by it. This course draws on a wide selection of sources including history, sociology, psychology, popular culture. This course is offered in English with a discussion group in Italian for Italian studies majors and Italian minors. Students of Italian will write their papers in Italian. *Prerequisite: 231 or permission of instructor.* 

400. Senior Tutorial in Italian Studies Conceived as an integrative experience, this tutorial provides an opportunity for students to examine a specific theme or author from various perspectives. Independent research, under close supervision of a professor, will be shared with other seniors in regular discussion group meetings and will be articulated in a substantial critical paper at the end of the semester. Prerequisite: Italian studies major or permission of the director of the Italian studies program.

#### The following courses are offered in Bologna:

220. Italian Immersion A four-week course in Italian language and culture offered in Bologna, Italy. Students speak only Italian while participating in intensive language instruction and other activities planned by the College to deepen students' understanding of contemporary Italian life and culture. Offered only at the Dickinson Center for European Studies in Bologna. Prerequisite: 116 or the equivalent and acceptance into the Italian Summer Immersion Program.

225. Intensive Italian Expression An intensive study of Italian which includes grammar review, reading comprehension, and oral expression in the context of daily Italian civilization. Individual attention to structure, vocabulary, and idiomatic usage. Offered only at the Dickinson Center for European Studies in Bologna. Because of the similarity in content, credit will not be given for both 225 and 220 (the immersion course). Prerequisite: 116 and permission of the instructor.

#### Minor

The minor consists of the following five courses in Italian beyond the 100 level to include: 231, 232 (or 220, Intensive Italian Expression), or 225 (Summer Immersion) in Bologna, 251, 252, and 320.

Note: Students receiving credit for the Italian studies major may not receive credit for the Italian minor. See page 108.

# Freshman Seminars

Dickinson introduces all entering freshman to the character of college level study through the Freshman Seminar Program. Seminars are required as one of the regular academic courses taken during the first semester of freshman year. While the topics from which freshmen may select their seminar study are as varied as the special academic pursuits of the faculty who teach the seminars, all seminars share the tasks of helping students to adopt high standards for writing, discussion, analysis, and research. Faculty from all departments of the College share the responsibilities for teaching in the seminar program and seek to develop topics which will lead students into college-level study and reflection.

All Dickinson freshman arrive on campus for orientation knowing what freshman seminar they will join. The seminars begin in the orientation period, so that students are introduced to the academic life of the college at the same time that they learn to find their way into a new social environment.

# Geology

he geology department provides for the liberal arts student a background in the study of the earth, the oceans, and the history of life through several course offerings. For those who wish to pursue geology as an intellectual challenge or as a profession, it also provides an undergraduate program that offers lecture, laboratory work, field study, and the elements necessary to prepare for graduate study or entry into the profession at a beginning level. The faculty have a broad range of earth science training and research interests. Each is fully dedicated to teaching science as a liberal art.

The department views its program for majors as a flexible one that allows students to develop a plan of study around a set of required "core" courses according to their interests. Some graduates in recent years have moved into positions in: (1) environmental consulting firms, (2) the mineral or petroleum industry, (3) secondary education, and (4) state and federal geological or environmental agencies. Others have gone on to graduate or professional education in geology, geochemistry, geophysics, oceanography, law, and medicine.

The department is housed in a modern facility with state-of-the-art teaching and laboratory space. Students engaging in independent research have their own office space and share labs with faculty. Students and faculty can avail themselves of a full range of equipment and materials for field and laboratory study appropriate to an undergraduate education in geology. Our library receives all major professional journals and government documents. The department maintains a large collection of topographic and geologic maps. Laboratory equipment includes research and student petrographic and binocular microscopes, thin sectioning equipment, rock saws, and other sample preparation instruments. Major analytical instrumentation includes a scanning electron microscope, an x-ray diffractometer, an energy dispersive x-ray fluorescence spectrometer, and a flame atomic absorption spectrophotometer shared with chemistry. Our most recent acquisition is a graphite furnace atomic absorption spectrophometer. All geologic studies can

be supported by computers, from department-based micros to the College's mainframe.

The geographic location of Dickinson College is unusually favorable for the study of geology, and regular field trips are part of nearly every course offering. For oceanographic, geophysical and geochemical sampling, the department has available a wide range of equipment including boats and vehicles, allowing access to most field study areas.

Field trips away from central Pennsylvania take place every year, either as part of a formal course during the academic year, as a summer program, or during a vacation period. In recent years these trips have visited New England, Chesapeake Bay, the Bahamas, and the Delaware shore. The department has also sponsored a trip to Iceland.

Our newest field study option is an interdisciplinary marine studies program. Sponsored jointly with biology and environmental studies, the core of the program is an intensive multi-week study of coral reef ecology, biology, and geology in the Bahamas during January.

## Faculty

Noel Potter, Jr., Professor of Geology. Ph.D., University of Minnesota. His specialties are geomorphology and structural geology. His current research is mainly concerned with the origin of landforms, particularly those of cold regions. His current projects include work on glacial history in Antarctica and the erosional history of the Great Valley near Carlisle. (On leave 1996-97)

Jeffrey W. Niemitz, Professor of Geology. Ph.D., University of Southern California. His specialties are marine geochemistry and oceanography. His current research interests include laminated marine sediments and sedimentary rocks applied to paleoceanographic and paleoclimatic studies in Mexico, California, and the United Kingdom, and the eastern U.S.

Lisa A. Rossbacher, Professor of Geology. Ph.D., Princeton University. Her specialties include the landforms and processes that operate on planetary surfaces, particularly Mars. Current research includes the role of water in the history of Mars, erosional processes along the San Andreas Fault, and interactions between science and society.

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Marcus M. Key, Jr., Chair. Associate Professor of Geology. Ph.D., Yale University. His specialty is inferring evolutionary and sedimentary patterns and processes using fossil and living organisms. His current research involves marine biofouling and functional morphology of bryozoans.

Gene M. Yogodzinski, Assistant Professor of Geology. Ph.D., Cornell University. His specialties are mineralogy, petrology, geochemistry, and volcanology. His research interests include the geochemistry of volcanic rocks, the interplay of magmatic and tectonic processes, and magma genesis. Areas of interest include the volcanoes of the Aleutian Islands and Kamchatka, basaltic volcanism in the interior Western U.S., and the ancient record of volcanism in the Appalachian Mountains.

#### Courses

101. The History of Life An overview of life from its origin on this planet to its present diversity of forms. Topics will include the origin of life, the radiation of organisms in the oceans, the conquest of land, mass extinctions, dinosaurs, and the rise of humans. Three hours of classroom work per week. This course will not count toward a major or minor in geology.

131, 132. Physical and Historical Geology Examines our dynamic, ever-changing planet past and present

through the theory of plate tectonics, and the physical processes that transform the earth's surface including weathering and erosion, flooding, and landslides. Groundwater, volcanoes, and earthquakes are discussed. The nature of geologic materials and structure of the earth are also examined. Continental wanderings, mountain building, ocean basin evolution, and climate changes are then the backdrop for 4.5 billion years of earth history and the evolution of life. Topics include the origin of life, early multicellular organisms, vertebrate evolution, invasion of the land by plants and animals, dinosaur dominance and extinction, and the diversification of mammals including man. The geologic history of the local area is observed through numerous field trips. Three hours classroom and three hours laboratory a week.

201. **Geomorphology** The description and interpretation of the relief features of the earth's continents and ocean basins with a comprehensive study of the basic processes which shape them. *Three hours classroom and three hours laboratory a week*. *Offered every other year. Prerequisite: 131*.

202. Energy Resources The study of the origin, geologic occurrence, and distribution of petroleum, natural gas, coal, and uranium. Discussions include the evaluation and exploitation, economics, law, and the environmental impact of these resources and their alternatives, including geothermal, wind, solar, tidal,

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and ocean thermal power. Prerequisites: 131 or Environmental Studies 131. Offered every other year.

- 204. Mineral Resources The study of the origin, geologic occurrence, and distribution of metallic and industrial minerals. Discussions include the evaluation and exploitation, economics, law, environmental impact, and politics of these resources. *Prerequisite: 131 or Environmental Studies 131. Offered every other year.*
- 205. Mineralogy A course in descriptive mineralogy in which the various mineral groups are studied. Includes crystallography, general physical properties, chemical and systematic mineralogy, and instrumental analyses. Three hours classroom and three hours laboratory a week. Prerequisite: 131, Chemistry 141, or concurrent registration therein.
- 206. **Petrology** A systematic study of the modes of occurrence, origin, and classification of rock types. Laboratory studies will be focused on the megascopic identification of the common rocks. *Three hours class-room and three hours laboratory a week. Prerequisite: 205.*
- 207. Paleontology A systematic study of the invertebrate and vertebrate fossil groups, plants, and their evolution and relationships to living forms. Three hours classroom and three hours laboratory a week. Prerequisite: 131, 132 or Biology 111, 112.
- 209. Sedimentology A study of the processes and patterns of sedimentation. This includes the origination, transportation, deposition, lithification, and diagenesis of sediments. Three hours classroom and three hours laboratory a week. Prerequisite: 131 or permission of the instructor.
- 210. **Stratigraphy** A study of the theory and application of lithology, geochemistry, geochronology, and paleontology in determining the spatial and temporal relations of sedimentary rock strata. Emphasis on the interpretation of North American and European successions. *Three hours classroom and three hours laboratory a week. Prerequisite:* 131, 132, 205, 209.
- 220. Environmental Geology A survey of humankind's interaction with the physical environment focusing on geologic processes. The importance of geologic materials such as soils, sediments and bedrock, and natural resources will be discussed in

- the context of world population. Natural hazards (floods, earthquakes, volcanoes, coastal erosion, and landslides) will be studied to understand how we can minimize their threat. Land use and abuse including natural resource exploitation and pollution will be discussed in the context of geologic information for proper land-use planning. Labs will emphasize field study of environmental problems in the Cumberland Valley. Prerequisite: 131, 132 or Environmental Studies 131, 132. This course is cross-listed as Environmental Studies 220.
- 221. Oceanography An interdisciplinary introduction to the marine environment, including the chemistry of seawater, the physics of currents, water masses and waves, the geology of ocean basins, marine sediments and coastal features, and the biology of marine ecosystems. Topics include the theory of plate tectonics as an explanation for ocean basins, mid-ocean ridges, trenches, and island arcs. The interaction of man as exploiter and polluter in the marine environment is also considered. Three hours classroom and three hours laboratory per week. Offered every other year. Prerequisite: one year of a laboratory science. This course is cross-listed as Environmental Studies 221.
- 231. Chemistry of Earth Systems An introduction to the origin, distribution, and behavior of elements in the geochemical cycles and processes of the atmosphere, hydrosphere, and lithosphere. Topics include the chemistry of magma, hydrothermal fluids, weathering, fresh and ocean waters, sediment digenesis, hydrocarbons, and metamorphism. Includes radiometric dating and stable isotope applications. Lab will focus on sampling, instrumental analysis, and data interpretation of earth materials. *Prerequisite: Chemistry 141, Geology 131, 132. May be counted toward a chemistry major.*
- 301. Field Geology A course in some of the basic geological field techniques, with the preparation of topographic and geologic maps and reports from data obtained by the student in the field. Three hours classroom and three hours laboratory a week. Prerequisite: 131, 132.
- 302. **Structural Geology** Tectonics, properties, relationships, and positions of the component rock masses of the earth. *Three hours classroom and three hours laboratory a week. Prerequisite: 301.*

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311. **Special Topics** In-depth studies in special geological topics to be offered on the basis of need and demand. Recent topics have included Environmental Geology, Origin of Life, Quaternary Geology, and Instrumental Analysis in Geology. *Prerequisite: Permission of the instructor*.

318. Optical Mineralogy Crystal optics and use of the polarizing microscope for the examination of minerals by the immersion method and rocks in thin section. Three hours classroom and three hours laboratory a week. Offered every other year. Prerequisite: 206 or concurrent registration therein.

#### Following course is offered in January term:

304. Field Study of Marine Carbonate Environments An intensive off-campus field course examining the biological, chemical, geological, and physical processes and patterns in modern and ancient tropical marine carbonate environments. Human impact on these fragile environments will also be considered. An in-depth examination of all major sub-environments on San Salvador Island, Bahamas will be followed by independent study research projects. *Prerequisites: Geology/Environmental Studies 221 and permission of the instructor. Offered every other year. Cross listed with Environmental Studies and Biology.* 

# Major

Beginning with the class of 2000: Ten courses in Geology including 131, 132, 205, 206, 209, 231, 301, 302 and prior to the senior year, a one semester independent research or internship. In addition, Chemistry 141 is required.

#### Minor

Six courses including 131, 132.

Note: The department strongly urges students who plan to continue in graduate school to complete Mathematics 161, 162 and Physics 111, 112 or 131, 132. Under certain circumstances Physics 202 might also be appropriate. Students in virtually all graduate programs are expected to have a firm foundation in chemistry, calculus, and physics.

# German

he German program at Dickinson College offers a wide range of courses in language, literature, and culture reflecting the diversity in backgrounds, specialties, and research interests of its faculty. Because the classes are small, professors generally use a discussion format and encourage lively interaction. The program is both challenging and demanding, and the atmosphere in class is friendly and supportive. Students who choose German as a major often combine their major with a second field, such as international studies, music, or biology. Graduates incorporate their language skills and their knowledge of German culture into careers as varied as law, banking, the arts, business, publishing, and museum work. A number have established successful careers in Germany.

The department maintains strong links with Germany and other German-speaking countries, enabling students to experience German language, literature and culture directly at all course levels. As an integral part of the German program, the department sponsors summer-immersion and junior-year programs at the University of Bremen, our partner university. Advanced students are encouraged to study either in Bremen or at another quality program in Germany, Austria, or Switzerland during their junior year. Frequently, visitors, guest lecturers, and professors come to the Dickinson campus from the University of Bremen and other European or American universities and institutions. Also, every other year, the department of German hosts a German writer-in-residence for the spring semester—the writer for the spring semester 1996 was Herta Müller. This writer participates in some classes and gives public readings. Finally, two students from the University of Bremen come to Dickinson each year to serve as assistants and resource people within the college.

In addition to experiencing German culture on this interpersonal level, students have a variety of cultural materials available to them. Our library holdings include a sizeable collection of German films, and we sponsor a German film series each semester. In addition, the College subscribes to important German jour-

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nals and newspapers. Moreover, through our campuswide satellite system, we receive German television programs, which keep us up-to-date on the latest cultural and political developments in Germany and Austria.

Students may fulfill their Dickinson language requirement by taking the three basic courses (German 101, 104, and 116).

Our innovative language classes make use of German films and television programs, telephone conferences with German students and staff at the University of Bremen, and a language lab and television studio. The department has software (IBM/Mac) for language instruction, and our students may use it on their own computers or in Dickinson's computer labs, one of which is located right in Bosler Hall, the building which houses the departments of modern languages.

At the end of the three-semester sequence, students may apply to the German Department's Bremen Practicum (German 220). This month-long immersion program is held each summer on the campus of the University of Bremen. It combines intensive language instruction by University of Bremen professors with field trips to cultural sites and government and business offices. Students live with German families during these weeks, getting to know German family life firsthand.

After fulfilling their language requirement, students may take German 221/222 (Conversation and Composition), German 232 (Introduction to German Literature), or German 240/241 (German Cultural History). German 232, 240, and 241 are required for the major or minor, and provide the basis for the 300-level literature, film, and popular culture courses, as well as the junior year abroad program. Students who finished their language requirement may also take any of the topics courses when they are taught in English, such as Topics in German Studies, Topics in Women and Gender Studies, and Topics in Scandinavian Studies.

All majors take part in the 400-level seminar taught during the spring semester of their senior year (unless given exemption for participation in the professional teaching semester during that time. These students then do an alternate research project.). Based upon the knowledge of subject matter and methodology acquired in previous courses, the seminar provides students with the opportunity to do their own research within the framework of the seminar's topic and to present their findings to the class as a whole.

Qualified seniors are also encouraged to apply for departmental honors through the writing of a senior thesis.

A strong co-curricular program including the German Club, German House, German Table, films, excursions, radio shows, and other activities supplements the German Department's course offerings, providing many opportunities for students to apply their knowledge. For outstanding senior majors, the department awards two prestigious prizes: the Marion Dexter Learned Prize for highest achievements in German culture and language and the Heinrich Böll Prize for highest achievements in German literature combined with outstanding humanitarian qualities. Students who spend their junior year in Bremen and want to return to the University of Bremen after graduating from Dickinson in order to work toward an MA in German literature and/or English are considered to have completed the German Grundstudium by the University of Bremen. These Dickinson graduates may start their graduate studies in Bremen at the third year level.

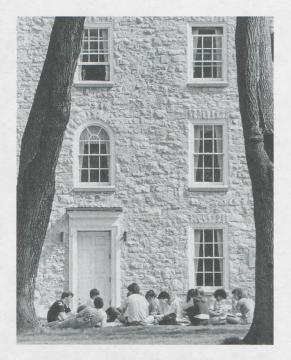
## Faculty

**Dieter J. Rollfinke,** Professor of German, Ph.D., Johns Hopkins University. His teaching interests focus on German culture as well as Romanticism and German literature of the 19th and 20th centuries. His current research is on the German povelist Heinrich Böll.

Beverley D. Eddy, Professor of German. Chair. Ph.D., Indiana University. Her scholarship has focused on German and Scandinavian prose literature of the 19th and 20th centuries as well as on German and Scandinavian folklore. Other teaching interests include medieval studies and cultural history.

Wolfgang Müller, Associate Professor of German. Ph.D., University of Wisconsin at Madison. His research and teaching interests are German drama, film, and German literature after WWII.

Gisela Roethke, Associate Professor of German. Ph.D., Harvard University. Her current research centers on 20th century German novels. Her teaching interests focus on 19th and 20th century German literature and on international women's studies issues.



Ronald Pirog, Associate Director of Off-Campus Studies, Part-time Associate Professor of German. Ph.D., University of North Carolina at Chapel Hill. His research interests are 19th and 20th century prose fiction, the works of Gottfried Keller, and reception theory. Other interests include international education, particularly cross-cultural orientation and program evaluation.

Rainer Stollmann, Part-time Associate Professor of German and Director of the Dickinson in Bremen Program. Ph.D., P.D., Universität Bremen. His teaching interests are German cultural history and cultural theory, and German literature of the 19th and 20th centuries. His current research deals with the concept of enlightenment and the grotesque.

#### Courses

\*101, 104. Elementary German An intensive study of the fundamentals of German grammar with an eye to developing reading, writing, speaking, and understanding skills. Classes are small, meet five days a week, and move quickly. Beginning students are reading stories and writing short essays within a few weeks. Please refer to Graduation Requirements (Languages).

116. Intermediate German Introduction to conversation and composition using the skills acquired in 101 and 104 or in similar courses. Special attention is paid to grammar problems. Readings include contemporary essays and/or fiction. Classes are small and intensive, meeting five days a week. *Prerequisite: 104 or the equivalent.* 

221. German Conversation and Composition Advanced practice in reading, writing, speaking, and understanding German, using current political and social events, stories, essays, and other materials as the topics for discussion and writing assignments. *Prerequisite:* 116 or the equivalent.

222. Conversation and Composition on Contemporary Issues This course builds upon 221 and sharpens the skills learned there, such as writing and speaking the German language. By focusing on cultural and political issues in the German speaking countries, it will also strengthen the cultural and political literacy of our students. Topics to be discussed may include the ramifications of Germany's unification, the Neo-Nazi movement, the administrative structure of Germany, Austria, and Switzerland, and the women's and labor movements. *Prerequisite: 221 or permission of the instructor.* 

232. Introduction to German Literature This course is designed to introduce students to the special skills required for careful, critical reading of literary texts. It is a prerequisite for all literature courses that the Department offers in German and is strongly recommended for all students intending to participate in a German program abroad. *Prerequisite: 116 or permission of the instructor.* 

240. German Cultural History I A survey of the historical, social, and cultural developments in Germany, including their impact upon German literature, from pre-Christian days up to the French Revolution. *Prerequisite:* 116 or the equivalent.

**241. German Cultural History II** A survey of the historical, social, and cultural developments in Germany, from the French Revolution up to the present day. *Prerequisite:* 116 or the equivalent.

**250. Topics in Germanic Studies** An examination of some topic related to German literature or culture.

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Topics may include studies of major German writers such as Goethe, Mann, and Wolf, German humor, sagas and legends.

- **251. Topic in Scandinavian Studies** Courses on the literature and culture of these north Germanic countries are offered regularly and cover topics as diverse as: the Vikings; Ibsen and Strindberg: Women in Scandinavian literature; the Scandinavian novel. *Offered in English.*
- 252. Topics in Women's and Gender Studies Analysis and discussion of various feminist or gender issues. Topics may be feminist literature and criticism, individual feminist authors, German women's history, recent feminist issues, or the cultural construction of gender in German society and literature. Offered in English.
- 341. **German Medieval Literature** A study of the German medieval period. Readings will include epics such as the Nibelungenlied, the Eddas, the songs of the courtly poets, and Arthurian tales. *Prerequisite: 230 and 240. Simultaneous enrollment in 240 is permitted.*
- 342. Sturm und Drang and German Classicism A study of the works of Goethe and Schiller and their contemporaries, and the era in which they lived and worked. Prerequisite: 230 and 240. Simultaneous enrollment in 240 is permitted.
- 343. German Romanticism A study of the generation of writers after Goethe and Schiller (the 1790s to the 1830s), e.g., E.T.A. Hoffmann, Brentano, and the brothers Grimm, whose stories, poems, and fairy tales have had a powerful effect on Poe and Hesse. *Prerequisite: 230 and 240. Simultaneous enrollment in 240 is permitted.*
- 344. **German Bourgeois Realism** A study of the works of Stifter, Grillparzer, Heine, Grabbe, Storm, and Fontane, writers active from the turmoil of the mid-1800s to the rise of Prussia and the decay and collapse of the Austrian empire. *Prerequisite: 230 and 241. Simultaneous enrollment in 241 is permitted.*
- 345. **German Expressionism** A study of the works of writers in World War I and the Weimar Republic, including Wedekind, Werfel, Trakl, Kaiser, Toller, and Lasker-Schüler. *Prerequisite: 230 and 241. Simultaneous enrollment in 241 is permitted.*

- 346. German Literature since 1945 A study of the works of Bachmann, Böll, Frisch, Grass, Heym, Wolf, and others as writers dealing with contemporary issues of the German speaking countries. *Prerequisite:* 230 and 241. Simultaneous enrollment in 241 is permitted.
- 360. German Popular Culture This course will investigate German popular culture in its historical and cultural context. Students will study selected texts from popular fiction, such as detective novels and cartoons, listen to popular music, and watch popular tv series, while developing a methodology to analyze critically the "other" German culture. *Prerequisite: Permission of the instructor.*
- 370. German Film This course will focus on German films in their broader cultural and historical context. Students will study selected films and develop a method for viewing and analyzing them. Topics may be the "New German Cinema" from Schlöndorff and Kluge to Herzog, Fassbinder and Wenders, the films of feminist film makers, such as Sander, von Trotta, Ottinger, and Sanders-Brahms, or Literature and Film. *Prerequisite: Permission of the instructor.*
- 400. **Senior Seminar** Advanced investigation of a particular writer, work, problem, or theme in German literature and/or culture, with emphasis on independent research and seminar reports. *Prerequisite: German major or permission of the instructor.*

#### The following courses are offered in Bremen:

- 220. The Bremen Practicum A four-week course in contemporary German language and culture offered at the University of Bremen, West Germany. Students will speak only German during this four-week period, and participate in intensive language classes, special lectures and field trips arranged by Dickinson with German university instructors. *Prerequisite: German 116 or equivalent and permission of the department.*
- 340. Comparative Cultures: USA-Germany Using the university and city of Bremen as laboratory, students will explore the experience of culture shock, the difference between American and German everyday life, structural differences in American and German public institutions, historical ties between the two countries, historic concepts and symbols, differing relationships to national culture, the effect of Ger-

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many's past on contemporary consciousness. Prerequisite: Acceptance into the Dickinson in Bremen Program.

# Major

After completing the German language requirement, students who major in German must take 11 courses, three of which can be taken in English. If the three courses in English are offered as FLIC courses, German majors are required to take them in that form. Nine of the eleven required courses must be taken in the field of German literature, language, and culture, including German 232, 240, 241, and 400. Four of these eleven courses may be language courses taken beyond the language requirement. Seniors must take one 300-level course in the Fall semester and the Senior Seminar in the Spring semester (special arrangements will be made for the seniors completing their professional teaching semester in the spring). Two courses (in which a significant portion of their content deals with Germany-related issues) must be taken in one or more of the following departments: history, philosophy, fine arts (art history), music, political science, economics, Judaic studies, religion.

## Minor

Students who want to minor in German have to take 6 courses beyond the required language sequence including 230, 240 and 241. Five of these courses must be in the German language. Two of these six courses may be language courses taken beyond the language requirements.

# Greek

See Classical Studies

# Hebrew

See Classical Studies

# History

he study of history is one of the most important aspects of a liberal arts education. It informs you about your own cultural and intellectual heritage, and the process of social, political, and economic development that produced the institutions and attitudes of our own world. The history department at Dickinson offers a range of introductory and advanced courses in both American history and in European history since the Middle Ages. In addition, living as we do in a world of many different societies and civilizations, the study of history provides information about the non-Western world and comparative insights into the operation of historical processes throughout the world. We offer introductory and advanced work in the history of East and South Asia as well as courses on the Middle East and Latin America.

The history curriculum emphasizes training in the skills of the historian—skills as basic as using the resources of a library, writing well, and reading texts critically and analytically. All courses in the department offer opportunities to master reading, writing, and research. These skills are especially emphasized in a sophomore-level course called Introduction to Historical Methodology and in the several seminars on various topics that are offered each semester.

Students graduating with a major in history sometimes go into specifically historically oriented careers history has prepared them with the background and skills to enter such varied professions as law, business, journalism, and government.

# Faculty

Clarke Garrett, Charles A. Dana Professor of History. Ph.D., University of Wisconsin. His current interests and specialization include the study of European culture and historiography and methodology, especially the application of anthropology to history. His research centers on the study of popular religion during the French Revolution.

Stephen Weinberger, Robert Coleman Professor of History. Ph.D., University of Wisconsin. His teaching interests center on medieval and Renaissance history, and European intellectual history, with emphasis on feudal society. His current research involves conflict in medieval society, the hero, and Machiavelli.

Charles A. Jarvis, Professor of History. Ph.D., University of Missouri. Teaching interests are U.S. history new nation, Civil War/reconstruction, U.S. diplomatic, and Afro-America. Research interests examine abolitionism and the Civil War. (On campus Bologna Director)

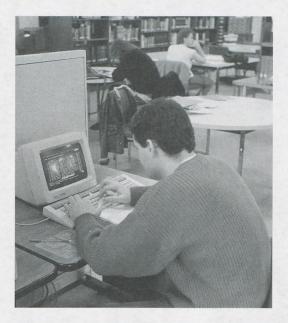
George N. Rhyne, Professor of History. Ph.D. University of North Carolina. Teaching focuses on modern European history, with specialization on Russian and Soviet history, and European diplomatic history. Research interests focus on Lenin and the Soviet Union.

Neil B. Weissman, Professor of History and Director of the Clarke Center for the Interdisciplinary Study of Contemporary Issues. Ph.D., Princeton University. His areas of specialization involve the comparative history of Russia, Japan, and Germany, with emphasis on the impact of revolution and modernization on traditional societies and cultures. His research deals with police and deviance in early Soviet Russia.

John M. Osborne, Associate Professor of History. Ph.D., Stanford University. Teaching interests center on British and modern European history, with specialization on World War I, industrialism, and leisure. Present research interests are in the social history of recreation in First World War Britain.

Kim Lacy Rogers, Associate Professor of History. Ph.D., University of Minnesota. Her teaching interests center on recent U.S. history, urban America, and gender and family history. Research interests include biography and autobiography, oral history and lifecourse analysis.

**Daniel K. Richter,** Associate Professor of History. Chair. Ph.D., Columbia University. Teaching areas include American intellectual and social history, the colonial and Revolutionary periods, and the native American experience. His research centers on early American race relations.



**David Commins,** Associate Professor of History. Ph.D., University of Michigan. His teaching interests are in modern Middle Eastern history with an emphasis on Islamic thought and political movements. His current research is on the Quran.

Timothy Lang, Assistant Professor of History. Ph.D., Yale University. His teaching interests are in modern British and modern European intellectual and political history, with an emphasis on the Victorian period. His current research focuses on the ideological content of 19th and 20th century narrative histories. (European Studies Center, Bologna, Italy, 1996-97)

Lisa Lieberman, Assistant Professor of History. Ph.D., Yale University. Teaching interests are in modern European cultural and intellectual history, specializing on social deviance and France. She is currently working on the problem of suicide in 19th century France. (Director, European Studies Center, Bologna, Italy, 1996-97)

Richard J. Stoller, Assistant Professor of History. Ph.D., Duke University. Teaching interests include Latin America, Sub-Saharan Africa, and comparative history and historiography. Primary research interest is nineteenth- and twentieth-century Colombian history, especially the social origins of the Colombian political system at the local and regional levels.

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Stephen C. MacDonald, Associate Dean of the College, Part-time Associate Professor of History. Ph.D., University of Virginia. His teaching focuses on modern European history, especially modern Germany and the era of the World Wars. Research interests include 20th century revolutions, German National Socialism, and the Holocaust.

#### Courses

- 105. **Medieval Europe** A survey of the development of European civilization from the fall of Rome to the Renaissance.
- 106. **Modern Europe I** Society, culture, and politics from the Renaissance through the French Revolution.
- 107. **Modern Europe II** Social, cultural, and political developments in Europe from the French Revolution to the present.
- 117, 118. American History A two-course survey. The first term—1607 to 1865—treats colonial, revolutionary and national America through the Civil War. The second course—1865 to the present—treats aspects of political evolution, foreign policy development, industrialization, urbanization, and the expanding roles of 20th century central government. Both courses include attention to historical interpretation. *Multiple sections offered*.
- 119. South Asia: India and Pakistan A survey of ancient Indian civilizations, classical Hindu culture, the era of Muslim dominance, European imperialism, and issues confronting the subcontinent since independence.
- 120. East Asia: China and Japan An introduction to the classical order in China and Japan followed by a consideration of the impact of Western intervention and internal change from the 18th century to the present. Special emphasis on the interaction between China and Japan in this period.
- 121. **History of the Middle East I** The rise of Islam, the development of Islamic civilization in medieval times and its decline relative to Europe in the early modern era, 1500-1750.

- 122. History of the Middle East II Bureaucratic-military reforms of the 19th century in Egypt and the Ottoman Empire, European imperialism, regional nationalisms, contemporary autocratic regimes, and the politicization of religion.
- 130, 131. Latin American History A two semester survey. The first investigates the ancient American civilizations, the Iberian background of the conquest, the clash of cultures that created a new colonial society, and the early 19th century movements for independence. The second term focuses on the social, economic, and political developments of the new nations from their consolidation in the late 19th century to the 1970s. Both courses view Latin American history from a global perspective.
- 204. Introduction to Historical Methodology Local archives and libraries serve as laboratories for this project-oriented seminar that introduces beginning majors to the nature of history as a discipline, historical research techniques, varied forms of historical evidence and the ways in which historians interpret them, and the conventions of historical writing. *Prerequisite: one previous course in history.*
- 211. **Topics in American History** Selected areas and problems in American history. Suitable for beginning history students, majors, and non-majors.
- 213. **Topics in European History** Selected areas and problems in European history. Suitable for beginning history students, majors, and non-majors.
- 215. **Topics in Comparative History** Selected areas and problems in comparative history. Suitable for beginning history students, majors, and non-majors.
- 222. **Feudal Europe** A study of the emergence of feudalism and an evaluation of its role in the development of western Europe. *Offered every other year.*
- 223. **Renaissance Europe** A study of prevailing conditions (social, economic, political, and cultural) in western Europe with particular attention given to the achievements and failures of the Renaissance. *Offered every other year*.
- 228. Italian History from the Middle Ages to the Enlightenment An examination of the principal

events in Italian society, culture, religion, and politics, including the rise of the medieval monastic orders, Italian city-states, the development of commerce and industry, Renaissance Italy, the age of counter-reformation, and the Age of Enlightenment. Student research will utilize resources such as museums and libraries available in the Bologna area. Offered in Bologna only.

- 230. Modern Germany From the 19th century to the present. Emphasis on political and cultural responses to socio-economic change, including German liberalism, the Bismarckian settlement, origins of the World Wars, Weimar democracy, and Nazism. Offered every other year.
- 231. **Modern France** French society, culture, and politics from the Restoration to the present. *Offered every other year.*
- 232. Modern Italy A survey of social, cultural, and political developments from the beginnings of the Risorgimento in the 18th century to the post-war period, including the effects of the Napoleonic period, the unification of Italy, World War I, Fascism, World War II, and the Cold War. Offered every other year.
- 234. Europe: 1914-1945 An examination of the evolution of European society between 1914 and 1945 under the impact of communism, fascism and world war. Offered every other year.
- 235. **Industrial Europe** The social, economic, and cultural impact of the rise of industrialism and modernization on western Europe from 18th century beginnings to the full maturation of industrial society. *Offered every other year.*
- 236. African History an overview of key issues in the history of Africa south of the Sahara, including precolonial society and the sources for its study, Africa's role in the making of the "Atlantic world," the implantation and consequences of European colonial rule, and developments since Independence.
- 243, 244. English/British History: 55 B.C. to Date First semester: the emergence of a unified English society, and its political expression, to 1688 with particular attention to social, economic, and institutional developments. Second semester: the political, eco-

nomic, and social development of Great Britain, domestically and internationally, as a major power in the 18th and 19th centuries, and the abandonment of that role in the 20th century.

- 247. American Colonial History An examination of North American history from the earliest contacts between European and American peoples to the eve of the American Revolution. Particular attention is devoted to the interplay of Indian, French, Spanish, and English cultures, to the rise of the British to a position of dominance by 1763, and to the internal social and political development of the Anglo-American colonies.
- 253, 254. **History of Russia** First semester: from earliest times through the reign of Alexander III. Second semester: fall of the tsardom, the Russian revolution, the Soviet experience, and post-communist transition.
- 257. **European Intellectual History** Main currents of Western thought from the 17th century to the present with emphasis upon the interaction of ideas and social development. *Offered every other year.*
- 259. Europe Since 1945 A social, political, and cultural study of the nations of Europe from the end of the Second World War to the present including the early East/West division, economic recovery, and the growth of economic and political integration.
- 262. Modern South Asia Crises in Indian civilization of 19th and 20th centuries. Impact of Western control and the evolution of nationalism resulting in independence and partition in 1947. Contemporary nations and cultures: India, Pakistan, and Bangladesh. Offered every other year.
- 281. **Recent U.S. History** Examination of the social, political, and economic development of the U.S. since the New Deal.
- 286. **New Nation 1787-1828** Reading and research in the political, economic, and social developments of the U.S. during the first generation of its official nationhood, from the writing and ratification of the Constitution to the election of 1828.
- 288. American History in the Civil War Period An analysis of the political, economic, and intellectual

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aspects of 19th century America from 1828 to 1865. Attention is given to the causes and course of the Civil War.

- 304. Collateral Research In this half-credit research experience a student builds on the skills introduced in History 204 to produce a substantial essay dealing either with a significant historiographical problem or with a question involving research in primary sources. Must be taken in conjunction with a substantive course at the 200 or 300 level, which will provide a broader context for the problem addressed in the student's essay *Prerequisite: 204 and permission of the instructor. One-half course credit.*
- 311. Studies in American History Selected areas and problems in American history. Designed for majors and for non-majors who have taken courses in related fields.
- 313, 314. **Studies in European History** Selected areas and problems in European history. *Designed for majors and for non-majors who have taken courses in related fields.* 314 offered in Bologna only.
- 315. Studies in Comparative History Selected trends and problems studied comparatively in various periods and geographical areas. Designed for majors and for non-majors who have taken courses in related fields.
- 333. The First World War A study of the causes, progress, and consequences of the first global conflict of modern times. Particular attention is paid to the political and social impact of total warfare on the participating nations. Offered every other year.
- 336. Comparative Revolutions Comparative consideration of major revolutions such as those in France (1789), Russia (1917), and China (1949) in terms of causation, program, dynamics, and long-term effect. Offered occasionally.
- 349, 350. American Intellectual and Social History I and II An exploration of relationships between American ideas and American society, with particular concern for the changing ways in which Americans have thought about themselves, their communities, and their role in the world. The first semester deals with selected topics from the European discovery of America to the middle of the 19th century, including the evolution of racial attitudes, the rise and fall of Puri-

- tanism, the roots of republican political ideology, and the efforts of 19th century reformers. The second semester covers topics from the mid-19th century to the present, with special attention to the social world of the factory and the city and the intellectual world of science and social science.
- 357. Deviance in Modern Europe Insanity, crime, and social protest in Europe from the 16th century to the present. An exploration of the ways in which European societies have attempted to define and control mental and social disorders. A reading and discussion course in which students are encouraged to examine their own attitudes toward deviant behavior.
- 358. **19th-20th Century European Diplomacy** European diplomatic history from the Congress of Vienna through World War II. *Offered occasionally*.
- 360. Japanese Modernization An investigation of the impact of modernization on Japanese society over the last two centuries. Special emphasis on conflicting interpretations of Japanese constitutionalism, imperialism, and militarism and on the relevance of Japan's historical experience for an understanding of her contemporary condition. The course is not a survey, but no previous knowledge of Japanese history is required. Offered every other year.
- 361. China: Revolution and Modernization An examination of the interaction between the themes of modernization and revolution in China over the last two centuries. Emphasis on alternative programs for a new Chinese order including Nationalism and Communism. The course is not a survey, but no previous knowledge of Chinese history is required. Offered every other year.
- 371. The Arab-Israeli Conflict A study of conflict through four phases: the early stages of the Zionist movement and its impact in Ottoman Palestine to 1917; Zionist immigration and settlement and Arab reaction during the Mandate period; the creation of Israel and its wars with the Arab states to 1973; and the rise of a Palestinian Arab nationalist movement and the challenges it poses to Arab states and Israel.
- 372. Islam An introduction to Islamic beliefs and practices in their classical form: theology, mysticism, philosophy, law, and ritual. This course also provides

Dickinson College History 105

an overview of modern political and cultural developments in Muslim society.

382. Diplomatic History of the United States Description and analysis of the nation's role in world affairs, from the earliest definitions of a national interest in the 18th century, through continental expansion, acquisition of empire, and world power, to the Cold War and retreat from intervention.

388. African-American History A survey of black history from pre-colonial Africa and the origins of slavery in the American colonies to the urban migrations of the 20th century.

389. Native Peoples of Eastern North America A survey of major development among Native Americans east of the Mississippi River from approximately A.D. 1500 to the present, using the interdisciplinary methodologies of ethnohistory. Topics to be addressed include 16th and 17th century demographic, economic, and social consequences of contact with European peoples, 18th century strategies of resistance and accommodation, and 19th century government removal and cultural assimilation policies, and 20th century cultural and political developments among the regions surviving Indian communities. *This course is cross-listed as Anthropology 223*.

392. Immigrant America This course examines the experiences of immigrant and migrant Americans from the 17th through the 20th centuries, with special emphasis on the periods 1870-1914 and 1965-present. It will analyze the changing context of the immigrant and migrant experience as depicted in historical, autobiographical, and fictional narratives. Offered every other year.

394. The Family in America Traces the history of the American family from the colonial period through the present, using an interdisciplinary approach that combines readings in demography, social history, psychology, literature, and anthropology. Topics explored include family formation and gender creation, marriage and divorce, family violence, and the social impact of changing patterns of mortality and fertility.

404. **Senior Research Seminar** An examination of the historiography of a major topic, culminating in substantial research paper based in significant part on

the interpretation of primary sources. Prerequisite: 204, 304 or equivalent, and permission of the instructor.

## Major

Beginning with the class of 1999:

Ten courses including:

I. Methodological Core:

History 204

History 304

History 404

II. Thematic Emphasis

Option A: Regional Focus

European History: 105 and 106, or 106 and 107, or 243 and 244, or 253 and 254, and at least two of the following: 213, 222, 223, 230, 231, 232, 234, 235, 257, 259, 313, 314, 333, 336, 357, 358

- or North American History: 117 and 118, or 349 and 350, and at least two of the following: 211, 247, 281, 286, 288, 311, 382, 388, 389, 392, 394
- or Latin American History: 130 and 131 and at least two of the following: 215 (where appropriate), 315 (where appropriate)
- or Middle Eastern History: 121 and 122 and at least two of the following: 215 (where appropriate), 315 (where appropriate), 371, 372
- or Asian History: 119 and 120 and at least two of the following: 215 (where appropriate), 262, 315 (where appropriate), 336, 360, 361

#### Option B: Topics Focus

Four related courses on a historical theme defined in conjunction with the student's advisor. At least three of the courses must be at the 200 or 300 level. Under either option, a course from an appropriate related discipline may be substituted for one of the upper-level course requirements.

#### **III.Comparative Contexts**

At least one course each in North American, European, and Non-western or Latin American History; Classics 251, 252, 253, or 254 may be substituted for the European History.

#### Minor

Six courses, including at least two in American and two in European history.

## Humanities

In all courses given the humanities designation, students study the aesthetics of specific human works in various media and inquire into the meanings of human existence embodied or suggested there. The courses explore the varied historical and cultural contexts of such works to support the primary focus upon the integrity and artistic character of the works themselves. The instruction is interdisciplinary.

#### Courses:

120. Masterworks of the Western World A study of a small number of works from the several arts—architecture, the graphic arts, literature, and music. The intent is 1) to focus on the works themselves, their dialectics of form and content, 2) to inquire into their historical cultural and personal contexts, and 3) to explore the conditions and character of each achievement, both in its own setting and in its potential for more universal aesthetic power. Works will be chosen from fifth century Athens, 16th or 17th century Europe, and 20th century America. Open to freshmen and sophomores.

220. Masterpieces of the Western World This course will have the same syllabus as Humanities 120. Identical materials are covered and lectures given jointly. However, the course will have its own discussion groups, and a more advanced level of interpretive skills will be assumed both for group discussions and for evaluation. Open to juniors and seniors.

**Note:** Students may take either course for credit but not both. Either course fulfills Group 1 of the humanities division distribution requirement.

The following courses are offered in England:

109. London's History and Culture A topics course which focuses upon the ways that history, literature, and the arts shape culture, using the city of London and its environs as a laboratory. Taught in the Summer Semester in England only.

309. Studies in the Humanities I The primary aim of Humanities 309 is to help students understand works of art as human statements that share certain formal principles and make manifest (in their differing ways) a variety of common values. The course explores not only those formal and aesthetic principles to which all the arts respond in various historical eras, but also those occasions when one art form influences another. A second major goal is to study the ways that literature, the fine arts, drama, and music might well be understood by considering the sensibilities of the creator within the socio-cultural influences of a particular epoch. The emphasis in this regard is on the ways in which the history and geography of London can help us appreciate the production, performance or displaying of the arts in a specific cultural context. Offered only in the Dickinson Humanities Program in England. This course will fulfill neither a distribution nor a major requirement. Prerequisite: acceptance into the Dickinson Humanities Program in England.

310. Studies in the Humanities II A continuation of Humanities 309, pursuing the same concerns only in a different setting: The new focus is on the ways in which the history and geography of Norwich and East Anglia in particular, and "the country" in general, can help us appreciate the production, performance or displaying of the arts in a specific cultural context. Students will build upon individual research projects undertaken in Humanities 309, studying the special impact of setting on culture. Offered only in the Dickinson Humanities Program in England. This course will fulfill neither a distribution nor a major requirement. Prerequisite: Humanities 309.

315. Topics in the Humanities This course permits the exploration of a discipline-specific topic in the context of English culture. Topics will vary according to the discipline of the director and may include topics from the following disciplines: dramatic arts, literature, fine arts, history, and music. Offered only in the Dickinson Humanities Program in England. This course will not fulfill a distribution requirement and will fulfill a major requirement if so directed by the department of the Dickinson Director. Prerequisite: permission of the instructor.



# Interdisciplinary Studies

#### Courses

300. The Bologna Practicum An interdisciplinary seminar focusing on the city of Bologna. Guest participants include administrators, political figures, art experts, and others with local expertise. To be offered only in Bologna.

## International Studies

nternational studies is an interdisciplinary major which draws on the perspectives of economics, history, and political science to examine international relations in a changing world environment. To these disciplines are added cultural studies concerning a geographical area of the student's choice: e.g., a language of the area and selected courses in the area's literature, philosophy, music, art, or religion. The interdisciplinary experience is completed with an integrative research seminar and a comprehensive oral examination. The program is intended to prepare a student either for graduate studies or for a career with an international focus.

### Faculty

Douglas T. Stuart, Professor of Political Science, Director. Ph.D., University of Southern California. His teaching and research interests include international relations theory, national security affairs, Asian and West European security.

Pernilla M. Neal, Assistant Professor of Political Science. Ph.D., University of Colorado. The exercise of power by global actors, the practice of diplomacy and the formulation of foreign policy are her three principal areas of interest. Her geographical area of specialization is Western Europe.

## Contributing Faculty

Russell Bova, Associate Professor of Political Science Michael Fratantuono, Associate Professor of Economics (On leave 1996-97)

Timothy Lang, Assistant Professor of History (Bologna, 1996-97)

Robert D. Ness, Associate Professor of English (On leave 1996-97)

290. **Selected Topics in International Studies** Special topics not usually studied in depth in course offerings are examined.

401. **Interdisciplinary Seminar Research** Integrates the various disciplines in the major, normally involving the student's geographic area.

402, 403. **Integrated Study** During the senior year students will prepare for an oral examination in the core disciplines and in their area. The examination will be administered by the supervising committee. *One-half course credit each semester.* 

### Major

I. Core Disciplines: eight courses in the core disciplines (economics, history, and political science). They must include the following, plus two electives. Electives must be clearly international in content and pertain directly to the student's area of geographic concentration.

Political Science 170, International Relations

Political Science 280, American Foreign Policy, or Political Science 281, American National Security Policy

History 382, U.S. Diplomatic History. History 118 may be substituted if 382 is not available, with prior approval of the program director.

History 358, 19th-20th Century European Diplomatic History. History 107 may be substituted if 358 is not available, with prior approval of the program director.

Economics 100, Contemporary Economics or Economics 111 and 112, Microeconomics and Macroeconomics

Economics 248, The World Economy or Economics 348, International Economics

II. Area Courses: five courses in one geographic area (Asia, Latin America, Russia, Middle East, eastern Europe, western Europe); students selecting western Europe will usually focus on a single nation exclusive of courses taken to meet requirements in the core disciplines. Three of these courses must be in the humanities. These courses must include:

a. one course in the history of the area or nation of

- concentration (western Europe courses must be in the appropriate national history wherever possible).
- one language course beyond the 116 level in the language of the area or nation of concentration,
- c. three courses examining the culture/civilization of the area or nation of concentration

Note: No core or area courses may be taken Pass/Fail.

III. Interdisciplinary Seminar Research: International Studies 401 seminar taken in the senior year.

IV. Integrated Study International Studies 402, 403.

## Study Abroad

One or two semesters (fall, spring, or summer): A student may choose, with the approval of the supervising committee, any program of foreign study in the context of an international studies semester abroad program. Although majors are encouraged to go abroad, study abroad is not required.

## Departmental Honors

A student will be awarded departmental honors if the student has a 3.00 average overall and in the major, an A or A- in International Studies 401, and Honors in the oral examination.

## Italian

See French and Italian See Italian Studies

## Italian Studies

Italian studies is an interdisciplinary program combining courses taken in the Italian department and courses related to Italian civilization and culture taken in at least two other departments. Beyond its Italian language and literature component, the major is designed to permit students to pursue the aspects of Italian civilization of most interest to them, while requiring a diversity of disciplinary approaches to ensure appropriate breadth. Ten courses are required for the major.

Students can pursue an Italian Studies major with an emphasis in Social Sciences, History, or Humanities. The elective courses listed in the catalog can be replaced with other equivalent classes, with the permission of the Italian Studies Program Coordinator.

During their junior year, our majors are strongly encouraged to spend at least a semester in Italy. Most of them choose the Dickinson Program in Bologna, Italy. At the Dickinson Center for European Studies in Bologna, students take courses in Italian. Thanks to a special agreement between the University of Bologna and Dickinson College, students can also take courses at the University, choosing from a wide variety of disciplines.

Students with at least three semesters of Italian can participate in a five-week Summer Immersion Program in Bologna, which runs from the end of May to the beginning of July. The Program consists of an intensive course in Italian Culture and Civilization, and includes several field trips to various Italian cities. Cultural immersion is enhanced by the daily interaction with host families and Bologna University students, who function as assistants.

Italian Studies majors work very closely with the faculty. They often get involved in independent researches and translation projects, and they collaborate on a regular basis as department assistants. After graduation, many Italian Studies majors take advantage of Dickinson's linkage program with the Monterey Institute for Foreign Languages and the Thunderbird School for International Management, which offer masters programs in International Business.

## Contributing Faculty

Sylvie G. Davidson, Associate Professor of Romance Languages (On leave 1996-97)

Cyril Dwiggins, Associate Professor of Philosophy Leon Fitts, Professor of Classical Studies Mary Moser, Associate Professor of Classical Studies Paul Oorts, Assistant Professor of Italian Tullio Pagano, Assistant Professor of Italian, Coordinator

Frederick Petty, Associate Professor of Music George Rhyne, Professor of History J. Mark Ruhl, Professor of Political Science Melinda Schlitt, Assistant Professor of Fine Arts Douglas Stuart, Professor of Political Science Stephen Weinberger, Professor of History

#### Major

- 1. Required courses within the Italian department:
  - a. Italian 231
  - b. Italian 232
  - c. Italian 251
  - d. Italian 252
  - e. Italian 320
  - f. Italian 400
- 2. Required courses taken in other departments:
  - a. Fine Arts 130. Renaissance Tradition (offered only in Bologna) or Fine Arts 300. Italian Renaissance Art 1250-1450 or Fine Arts 301. Italian Renaissance Art 1450-1563. Prerequisite for Italian studies major only: Fine Arts 101 or 102 or permission of instructor.
  - b. History 232. Modern Italy
- 3. Elective emphases: two courses to be taken in one area of emphasis. These courses are to be chosen in consultation with the director of the Italian studies program. Other courses approved by the director of the program may be substituted for any course in an area of emphasis when the contents of the course are suitable.
  - a. Humanities
    - -Classical Studies 223. Introduction to Etruscan Archaeology
    - -Classical Studies 224. Introduction to Roman Archaeology
    - -Fine Arts 304. Southern Baroque. Prerequisite for Italian studies major only: Fine Arts 101 or 102 or permission of instructor.



- -Music 104. History of Opera
- -Philosophy 242. Medieval and Renaissance Philosophy

#### b. History

- -Classical Studies 254. Roman History
- -History 223. Renaissance Europe
- -History 358. 19th-20th Century European Diplomacy

#### c. Social Sciences

- -Interdisciplinary Studies 300. Bologna Practicum (offered only in Bologna)
- -Political Science 250. Comparative West European Systems
- -Political Science 275. Comparative Industrial Relations (offered only in Bologna)
- -Political Science 276. Italian Politics (offered only in Bologna)

# Japanese

apan's relationship to the United States and the rest of the world is so significant that it becomes increasingly helpful to acquire the linguistic skills that enable one to gain a fuller access to this important cultural, economic, and political force.

The four-semester sequence is intended for students with limited or no prior knowledge of Japanese. The goal is to provide the student with the essential tools for conversation, reading, and writing in modern Japanese, and with a useful research tool in other fields of study. Students may take a fourth year of Japanese as an independent study.

Students are encouraged to study in Japan at the Dickinson College Program at Nanzan University during their junior years. Participation in this program provides an excellent opportunity for students to increase their language skills as well as to deepen their understanding of various aspects of Japanese culture and life.

Study of Japanese is an integral part of such majors as East Asian studies and international studies. Although there is no separate major or minor offered in Japanese language, completion of the four-semester sequence fulfills the College's foreign language requirement.

## Faculty

Wakaba Tasaka, Instructor in Japanese Language and Literature. M.A., University of Illinois at Urbana-Champaign. Her teaching and research interests include Japanese language and literature, comparative literature and film studies. Her field of specialization is psychoanalytic approach to literature and film.

**Midori Yasuda,** Instructor in Japanese. M.A., University of Wisconsin at Madison. Her academic interests lie in Japanese linguistics and language pedagogy with a focus on proficiency-oriented approach.

#### Courses

\*101, 102. Elementary Japanese These courses establish the basic language skills including listening,

Dickinson College Japanese 111



speaking, reading and writing. These courses also provide students with a brief overview of Japanese culture.

\*211, 212. **Intermediate Japanese** The aim of these courses is the mastery of the basic structure of Japanese language and communicative skills. The student will have an opportunity to get to know more of Japanese culture. *Prerequisite: 102 or permission of the instructor.* 

\*231, 232. **Advanced Japanese** The emphasis in these courses is placed on enhancing the students' fluency and acquiring increasingly creative skills through composition, oral presentation and discussion. *Prerequisite: 212 or permission of the instructor.* 

\*361, 362. Advanced Japanese II The emphasis in these courses is placed on polishing and refining the students' language skills. Emphasis is placed on covering more sophisticated materials such as newspapers, magazine articles, film and literature. *Prerequisite: 232 or permission of the instructor.* 

See East Asian Studies

# Judaic Studies

udaic Studies provides an interdisciplinary major designed to allow broad comprehension of Jewish civilization in its interaction with the civilizations of the ancient and modern world and in particular the Middle East. The major prepares students for further study or careers in Judaica and related vocational pursuits.

## Faculty

Stanley N. Rosenbaum, Professor of Religion and Classics. Ph.D., Brandeis University. He is a trained historian and Biblicist. Special interests include American Jewish history and literature and Jewish-Christian relations.

## Contributing Faculty

David Commins, Associate Professor of History Theodore Pulcini, Assistant Professor of Religion

#### Courses

104. **Introduction to Judaism** See course description with Religion 104 listing.

206. Jews and Judaism in the United States See course description with Religion 206 listing.

219. **History of the Jews** See course description with Religion 219 listing.

240. Women in Judaism Half of any people's history is lived by its women, but their part in the history is often overlooked or minimized by (male) historians. From the Matriarchs to Golda Meir, this course examines the roles and contributions of noteworthy as well as ordinary women in Jewish society throughout 3500 years of history.

241. Judaism in the Hellenistic Period Greek culture posed the most potent challenge to the survival of Jewish culture from Alexander's time to ours. This course exam-

ines how Judaism coped with an essentially friendly, multicultural society into which it was involuntarily thrust. Covers the period 333 b.c.e. to 313 c.e.

316. Topics in Judaic Studies See course description with Religion 316 listing.

490. **Senior Thesis** An independent project supervised by the Judaic Studies coordinator and an adviser from the appropriate department. The product of this course will be a written term paper that is also defended orally before a panel of three professors. *Open to senior Judaic Studies majors only.* 

## Major

Beginning with the class of 1999:

1. Required courses:

Hebrew 111, 112, to be begun no later than the sophomore year (or other language if suitable; consult the coordinator)

Religion 103, Hebrew Scriptures in Context Judaic Studies 104, Introduction to Judaism Judaic Studies 219, History of the Jews

- 2. One course that views religion from a comparative or methodological perspective, e.g., Religion 101 or 390 or Anthropology 233, taken in or before the junior year. (Courses from American Studies or Sociology might also be used to fulfill this requirement, with consent of the professor and the Judaic Studies coordinator.)
- 3. Three coordinated and complementary electives. To obtain Judaic Studies major credit in these courses, students are required; (1) to keep a journal or portfolio, as appropriate, of course materials having a Judaic Studies focus, and (2) to do a special project, with a Judaic Studies focus. The latter *may* serve as the regular term paper in that course, if permitted by the instructor. Judaic Studies work will be reviewed at least twice during the term by appropriate members of the Judaic Studies Steering Committee. Examples include:

Classical Studies. 252, Hellenic History; 254, Roman History.

English. 364, Studies in Modern Poetry; 383, Contemporary American Fiction.

Fine Arts. 203, Medieval Art

German. 241, German Cultural History II

History. 105, Medieval Europe; 117, American History to 1865; 118, American History since 1865;

121, History of the Middle East I; 122, History of the Middle East II; 230, Modern Germany; 290, Liberalism; 313, Deviance in Modern Europe; 315, Arab-Israeli Conflict;

**Judaic Studies.** 206, Jews & Judaism in the United States; 219, History of the Jews; 241, Judaism in the Hellenistic Period.

Philosophy 382, Theories of Knowledge;

Political Science. 280, American Foreign Policy since 1945;

Religion. 207, Holocaust & the Future of Religion; 211, Religion and Fantasy; 216, American Jewish Fiction; 306, Modern Jewish Thought

4. Judaic Studies 490

#### Minor

Beginning with the class of 1999:

- 1. One year (two courses) of Hebrew or other language if appropriate
- 2. Religion 103
- 3. Judaic Studies 104
- 4. Two electives (Judaic Studies 219 is recommended).

**Note:** See coordinator for further courses acceptable toward the major.

## Latin

See Classical Studies

# Latin American Studies

he Certificate Program in Latin American Studies is intended to allow students with varying interests and academic majors (such as history, economics, education, fine arts, political science, international studies, anthropology, and Spanish) an opportunity to develop an understanding and appreciation of Latin American civilization. It also provides students the opportunity to work closely with a core of professors with special training, experience, and enthusiasm in this field. The program offers a valuable preparation for those planning graduate work to become teachers, social workers, government officials, or managers in private business enterprises active in Latin America. The certificate also provides an advantage to students in seeking admission to graduate programs specifically concerned with Latin America.

Achievement of the certificate in Latin American Studies requires (1) the successful completion of Latin American Studies 201; (2) completion of six other approved courses or independent studies dealing with Latin America taken in at least three academic departments, e.g., Anthropology 221 and 222, Economics 349, Political Science 251, Spanish 232 and 242, etc.; (3) demonstrated language proficiency in Spanish or Portuguese, equivalent, as a minimum, to the completion of a 200-level conversation and composition course; (4) the completion of an interdisciplinary research paper written under the supervision of at least two faculty members from different departments, and for which one course credit, one-half in the fall and one-half in the spring semester, will be offered under Latin American Studies 490 taken in the fall and spring semesters of the senior year; and (5) the successful oral defense of the research paper before a committee of at least three program professors.

## Contributing Faculty

Keith Brower, Associate Professor of Spanish and Portuguese

Arturo Fox, Professor of Spanish Sinan Koont, Associate Professor of Economics J. Mark Ruhl, Professor of Political Science Richard J. Stoller, Assistant Professor of History

#### Courses

201. Introduction to Latin American Studies A multidisciplinary, introductory course designed to familiarize students with Latin American societies through a study of their history, economics, politics, literature, and culture. The purpose of the course is to provide a framework or overview to enhance understanding in the students' future courses in particular disciplines and specific areas of Latin American study. No prerequisite, required of all Latin American certificate candidates.

490. Latin American Interdisciplinary Research Research into a topic concerning Latin America directed by two or more faculty representing at least two disciplines. Students must successfully defend their research paper to obtain course credit. The paper is researched and written in the fall semester for one-half course credit and then defended and revised in the spring semester for the other half credit. Designed to satisfy requirement four (4) of Latin American Certificate Program. *Prerequisite: seniors in the program.* 

**Note:** Students must apply to the Latin American Studies Certificate Program by the beginning of their junior year

# Library Resources

ibrarians at Dickinson regard teaching as one of their fundamental responsibilities. They work closely with faculty in the research component of freshman seminars and in their role as liaisons to academic departments. In such contexts, they offer students the sophisticated tools they need to access and evaluate a myriad of information sources. Explaining the complexities of the Internet, outlining the rich and varied resources of the College's own Spahr Library collection, and insisting on the importance of serious and sustained research, the librarians at Dickinson encourage students to develop a critical use of materials. They provide a variety of in-class instruction at all levels and in all disciplines of the college. They also regularly teach freshman seminars and participate in a wide range of campus activities.

## Faculty

Sue K. Norman, Librarian. M.A., SUNY Albany; M.A. in L.S., University of Iowa. Her language study (Spanish, Russian, French and Portuguese) attest to her interest in language and linguistics. Her research interests and activities include working on the illiteracy problem in Pennsylvania, distance education, and adult education.

John C. Stachacz, Librarian. Chair. M.A., M.S.L.S. University of Kentucky. His major assignments in the library are reference, cataloging, and data base searching. His interdisciplinary interests include political and agricultural geography and environmental studies, and the use of internet resources. (On leave Fall 1996)

**Kristin Senecal**, Librarian. M.S.L.S., University of North Carolina; M.A., Shippensburg University. Her major responsibilities include reference, database searching, and cataloging. Her current research inter-

ests include historical demography of Pennsylvania populations, the history of the South, and active learning techniques in research instruction.

Steve McKinzie, Librarian. M.L.S., Vanderbilt University; M.A., East Carolina University. His primary responsibilities are in serials, cataloging and reference. His current research interests include CD-ROM technologies. Internet resources, and library pedagogy.

Nancy A. Persons, Librarian. M.L.S., Simmons College; M.A., University of Vermont. Her primary responsibilities include cataloging, reference, acquisitions, and government documents. Her research interests include nineteenth century German literature, foreign language across the curriculum, and the integration of government documents into the curriculum.

Neal A. Baker, Librarian. M.A., University of Iowa;1995, M.A. University of Iowa, 1993. His primary responsibilities are reference, cataloging, and the coordination of online services. His research interests include the science fiction/fantasy genre, film, and Internet resources.

Izabella Tomljanovich, Librarian. M.L.S., Southern Connecticut State University; M.A., Yale University; M.A., Middlebury College. Her primary responsibilities are cataloging and reference. Her research interests include Russian and East European Studies, modern German literature, and electronic resources.

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# Mathematics and Computer Science

uring the 5,000-year history, mathematics has flourished when the general level of civilization has flourished and never so much as in our Western civilization at the present time. It has been a spring of delight and source of wonder to all with eyes to see and minds to grasp, a source of understanding of the world around us, and increasingly of the world within us. In subject matter, mathematics varies considerably. Parts and the whole are articulated and stand in definite relations to one another; numerical and geometric relations are the most familiar but by no means the only examples. These sciences are logical; properties are soundly inferred from fundamental ones and so their conclusions are universally valid, which implies that they are not to be upset by any developments in the special sciences.

While the roots of computer science may be traced back perhaps a century, increasingly the discipline is founded on the convergence of a variety of highly specialized fields: mathematics, electrical engineering, cognitive science, and logic. It is generally recognized that programming and hardware forms the core of this discipline, but even more importantly computer science is highly developed problem-solving activity. Therefore, computer science is not simply computing. Fundamentally, it is concerned with language and how machines may be made to "think." Questions deal with the structure of (programming) languages, algorithms and how data is organized, symbolic computation, computing architectures and the interaction of humans with their machines, the nature of (artificial) intelligence, machine robotics, visual graphics, among others.

Courses in this department are organized into two major programs, mathematics and computer science. Students select courses from either or both fields, and frequently complete a double major in both areas. In general terms, the programs start with the more immediately applicable (Calculus and Introduction to Computer Science), develop intermediate themes (Analysis, Abstract Algebra, Programming Lan-

guages, Computer Architecture), branch out in other directions as appropriate to personal interests (Statistics, Operations Research, Artificial Intelligence, Computer Graphics), and finally return to foundational questions (Analysis, Topology, Discrete Structures).

A major in this department is strengthened by a diverse and strong academic program, low student/faculty ratio, close personal contact with faculty at all levels, and modern computing facilities. Once adequately prepared, students are encouraged to pursue independent study and research under faculty guidance. The department houses a library, student study areas, and, in addition to the College's campus-wide, ethernet computing system, its own local-area network with several main-processors and two micro-computer equipped class-room/laboratories.

### Faculty

Nancy Baxter Hastings, Theodore and Catherine Mathias Professor of Mathematics and Computer Science. Ph.D., Rutgers University. Her scholarship has concentrated in the area of applications of nonlinear functional analysis to numerical analysis. Her current research includes programming languages, with particular emphasis on using computers to teach abstract mathematical concepts.

Jack R. Stodghill, Associate Professor of Mathematics. Chair. Ph.D., Brown University. His scholarship has centered on the representation theory of Lie algebras and in particular on the Adams operators. His current research concerns the linearity aspects of mathematics.

Barry A. Tesman, Associate Professor of Mathematics. Ph.D., Rutgers University. His scholarship involves graph theory, combinatorics, and measurement theory. His recent research is in the application of graph coloring to radio and television transmission. (On leave Fall 1996)

Allan J. Rossman, Associate Professor of Mathematics. Ph.D., Carnegie-Mellon University. His teaching interests are in probability, statistics, and quantitative reasoning. His research area is Bayesian statistical inference. Recent scholarship has involved the devel-

opment of interactive curricular materials for introductory statistics.

David W. Reed, Assistant Professor of Computer Science. Ph.D., Duke University. His scholarship involves artificial intelligence and programming languages. His most recent research concerns logic programming and automated deduction, with additional interest in paradigms for teaching introductory computer science.

Craig S. Miller, Assistant Professor of Computer Science. Ph.D., University of Michigan. His scholarship involves the areas of cognitive science and artificial intelligence. His current research concerns computational models of human learning and educational software.

# Computer Science

131, 132. Computer Science An introduction to Computer Science as a major scientific discipline. The first half emphasizes problem solving using the programming languages ISETL and Modula-2, development of algorithms, elementary searching and sorting, and surveys computer architectures and operating systems. The second half emphasizes abstract data types (stacks, queues, lists), recursive programming, simulation, and surveys verification techniques, analysis of complexity, numerical and symbolic computation, database techniques, and artificial intelligence. Three hours classroom and two hours laboratory a week. 131 and 132 satisfies the laboratory science distribution requirement.

203, 204. Special Topics Topics to be announced when offered. Prerequisite: permission of the department. One-half or one course.

212. Theoretical Foundations of Computer Science An introduction to the theory of computer science including formal language theory (grammars, languages, and automata including Turing machines), and an introduction to the concept of effectively computable procedures, computability theory, and the halting problem. (Also listed as Mathematics 212). Prerequisite: Math 211; Co-requisite; 132.

- 231. Analysis of Algorithms The representation, manipulation, and use of such complex structures as trees and graphs; the design and analysis of algorithms such as back-tracking, divide-and-conquer, state-space search, balanced tree, sorting algorithms, and parallel algorithms; computational complexity; and NP-complete problems. Prerequisite: 132.
- 251. Computer Organization Computer architectures, data representation, machine arithmetics, conventional machine level instructions, assemblers and loaders; an introduction to assembly language programming. Prerequisite: 132.
- 256. Microcomputer Control A practical introduction to basic digital electronic design and analog to digital conversion techniques as well as microcomputer architecture and assembler programming. Topics are integrated in a final project involving the development of software and electronic circuits for computerbased control functions. Class and laboratory work totals six hours per week. Prerequisite: 231 and Physics 255. (Also listed as Physics 256.)
- 282. Numerical Methods A study of algorithms for the efficient approximation of definite integrals by numerical quadrature, the solution of non-linear equations, of linear systems of equations, and of the solution of differential equations. Prerequisite: 132 and Mathematics 261. (Also listed as Mathematics 282.)
- 312. Theoretical Computer Science One or more of formal languages, formal logic, computational complexity, and analysis of algorithms. Prerequisite: 212. Also listed as Mathematics 312.
- 354. Operating Systems A survey of operating systems software; batch, multitasking and time-sharing operating systems. Process management and scheduling, memory management and addressing; filing systems. Prerequisite: core courses.
- 356. Programming Language Structures Basic properties and special facilities of such higher level languages as Pascal, Modula-2, FORTRAN, LISP, PRO-LOG, SETL, and SNOBOL; data types, scope rules, block structure, procedure calls and parameter types, storage allocation considerations. Prerequisite: 231.

358. Computer Architecture and Logical Design Introduction to the logical design of digital networks. Topics include coding; data representation; arithmetic and logical design using combinational and clocked sequential networks; instructions and addressing; internal and external memories. Included will be an introduction to the design of 8/16/32-bit microprocessors. Knowledge of electronics is not required. *Prerequisite: core courses*.

364. Artificial Intelligence Application of computers to tasks that are usually considered to demand human intelligence. The task of finding a good representation and control structure for a given problem are discussed. Topics include natural language processing, vision, search techniques, game playing and learning. Introduction to LISP. *Prerequisite: core courses*.

374. **Computer Graphics** Foundation and mathematics of computer graphics systems, including 2- and 3-dimensional techniques of line and block diagrams, solid and surface figures, display algorithms, and hardware implementation. Use of high-resolution color vector and raster systems. *Prerequisite: core courses*.

378. Information Systems Relational, hierarchic, and network models in data base management; data definition languages and data manipulation languages; systems analysis; natural language processing and human information processing may be considered if time permits. *Prerequisite: core courses*.

403, 404. **Special Topics** Topics to be announced when offered. Possibilities include Simulation, Networks, and Compiler Design. *Prerequisite: permission of the instructor. One-half or one course.* 

406. Senior Seminar An in-depth examination of the phenomenon of the computer both as a concept and as a machine. Includes a treatment of selected ethical, intellectual, and philosophical issues. A substantial project at the meta-computing level will be required of each student. Prerequisite: any two 300-level courses, and senior standing in computer science.

## Major

At least eight courses numbered above 204, including: (1) the three core courses: 212, 231, and 251;

- (2) two of the following three courses: 354, 356, and 358;
- (3) two other computer science courses, at least one of which must be at the 300 level;
- (4) 406, or another computer science senior seminar.

The core should be completed as early as possible prior to undertaking 300-level courses. In addition, Mathematics 162, 211, and 222 are required and should normally be completed by the beginning of the junior year.

#### Minor

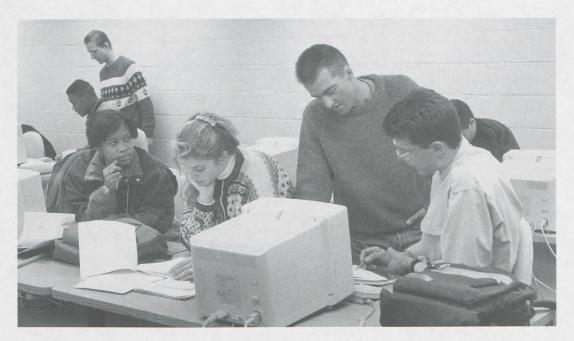
Six courses in computer science including 212, 231, and 251.

## Mathematics

110. Mathematical Modeling Introduction to the methodology of modeling as a technique useful in working towards the solution of real world problems. A variety of mathematical tools will be utilized at an elementary level. This course will not count toward the requirements of a major or minor.

120. Quantitative Reasoning This course teaches fundamental concepts and skills of quantitative reasoning. The emphasis is on developing the tools of critical thinking needed to understand, interpret, assess, and communicate numerical information and arguments, all in the context of actual case studies. Specific topics to be covered include measurement, scales and magnitudes, number representations, proportional reasoning, randomness, sample surveys, and simple experiments. No prerequisite, but not open to students who have taken 121. This course will not count toward the requirement of a major or minor. Fulfills the third course science requirement.

121. Elementary Statistics An introduction to the fundamental concepts involved in collecting, displaying, summarizing, and drawing inferences from data. Topics include exploratory data analysis, design of surveys and experiments, probability, sampling distributions, estimation, and significance testing. This course will not count towards the requirements of a major or minor.



\*151, 152. Introduction to Calculus A two-course sequence designed to prepare students for Math 162, Calculus II. First semester: a study of functions and limits with an introduction to derivatives. Second semester: continuation of differential calculus and an introduction to integral calculus with emphasis on applications. As needed, this sequence is augmented with a review of algebra, geometry, etc. Students are strongly encouraged to take both semesters. Course meets in a computer lab five hours per week on a 2-1-2 schedule. Completion of both 151 and 152 may be used as one course toward the minor. Because of course content similarity, students cannot receive credit for both Math 152 and Math 161. Prerequisite: recommendation of the department.

161. Calculus I Limits, derivatives indefinite and definite integrals. Emphasis is on the meaning and applications of the derivative and the definite integral. Three hours of classroom and two hours computer lab per week. Because of course content similarity, students cannot receive credit for both Math 152 and Math 161. Prerequisite: recommendation of the department.

162. Calculus II Transcendental functions, methods of integration and separable differential equations infinite sequences and series, and an introduction to parametric equations and polar coordinates. Meaning and applications are emphasized. Three hours classroom and two hours computer lab per week. Prerequisite: 152 or 161 or recommendation of the department.

201, 202. Special Topics Topics to be announced when offered. Prerequisite: permission of the instructor. One-half or one course. May count toward the major if so announced in advance.

211. Discrete Mathematics An introduction to propositional logic, sets, functions, predicate calculus, induction, automata, and grammars. Prerequisite: 161; Corequisite: Computer Science 131.

212. Theoretical Foundations of Computer Science Prerequisite: 211; Corequisite: Computer Science 132. See course description with Computer Science 212.

222. Probability An introduction to the mathematical theory of probability, including such topics as combinatorial methods, conditional probability and independence, discrete and continuous random variables, and expectation. Prerequisite: 162.

261. Calculus III Multivariate calculus including vectors and vector-valued functions, functions of several variables, partial differentiation, and multiple integration. Prerequisite: 162.

- 262. Introduction to Linear Algebra A study of matrices, determinants, vector spaces, linear transformations and inner products, and applications to different fields such as differential equations and geometry. *Prerequisite: 261, or permission of the department.*
- 282. Numerical Methods A study of algorithms for the efficient computer approximation of definite integrals by numerical quadrature, the solution of nonlinear equations, of linear systems of equations, and of the solutions of differential equations. *Prerequisite: 261 and Computer Science 132.* (Also listed as Computer Science 282.)
- 312. Theoretical Computer Science Prerequisite: 212. See course description with Computer Science 312.
- 321. Mathematical Statistics An introduction to mathematical theory of statistical inference. Topics include point and interval estimation and significance testing. As time permits, further topics may include exploratory data analysis, linear regression, analysis of variance, and categorical data analysis. *Prerequisite:* 222 and 261.
- 322. Topics in Probability and Statistics Topics to be chosen from the following areas: applied probability modeling, linear statistical models, exploratory data analysis, statistical decision theory, Bayesian inference, actuarial mathematics. *Prerequisite: 321 or permission of the instructor.*
- 331. Operations Research Uses of linear optimization models, solutions of linear systems of inequalities, the simplex algorithm, duality theory, and sensitivity analysis. The last quarter may be concerned with an additional topic such as dynamic programming or decision analysis. *Prerequisite: 262*.
- 332. **Topics in Operations Research** Topics to be chosen from the following areas: decision analysis, utility theory, cost benefit analysis, statistical decision theory, graph theory, game theory, and group decision making. Topics will vary from year to year. *Prerequisite:* 261.
- 351. **Algebraic Structures** An introductory treatment of fundamental algebraic structures such as groups, rings, and fields. *Prerequisite: 262.*

- 352. Linear Algebra An introduction to dual spaces, canonical forms and decomposition theorems, operations on inner product spaces, and additional topics, if time permits. *Prerequisite: 262.*
- \*361, 362. **Analysis I, II** The real number system, limits, continuity, convergence, differentiation, integration, infinite series, and higher dimensional calculus. *Prerequisite: 262.*
- 472. Complex Analysis An introductory study of functions in the complex plane. Topics include: complex numbers and functions, the theory of differentiation and integration of complex functions; Cauchy's integral theorem; the Residue theorem; conformal mappings. *Corequisite: 362*.
- 481. **Topology** An elementary study of metric and topological spaces touching upon open and closed sets, compactness, and connectedness. *Corequisite: 362*.
- 401, 402. **Special Topics** Topics to be announced when offered. *Prerequisite: permission of the department. One-half or one course.*

## Major

- At least eight courses numbered above 202 including:
- (1) the core courses: 261, 262, 351, 361, and 362;
- (2) one of the following: 472, 481, or another analysis course;
- (3) two other mathematics courses, at least one of which must be at the 300-level.

Mathematics 361 and 362 should be completed no later than the junior year. In addition, Computer Science 132 is required and should normally be completed by the beginning of the junior year.

#### Minor

Six courses in mathematics including 361.

# Military Science

he Department of Military Science (Army Reserve Officers' Training Corps) adds another dimension to a Dickinson College liberal arts education by offering courses which develop a student's ability to organize, motivate, and lead others.

Participation in military science courses during the freshman and sophomore years results in <u>no</u> military obligation. Courses during these years orient students on the various roles of Army officers. Specifically, they stress self-development, written and oral communication skills, leadership, bearing, and self-confidence.

Individuals who elect to continue in and successfully complete the program during their junior and senior years can receive a commission as a second lieutenant in the U.S. Army National Guard or Army Reserves upon graduation. They will be required to serve from four months to four years in the active Army, depending upon type of commission.

The following courses are required to satisfactorily complete the Army ROTC program:

Freshman Year: Military Science 101, 102
Sophomore Year: Military Science 201, 211
Junior Year: Military Science 321, 301
Senior Year: Military Science 401, 431

Students must also take courses in the following subject areas: military history, advanced writing, human behavior, computer literacy, and math reasoning.

Options are available for those individuals who encounter scheduling conflicts or who desire to begin participation after their freshman year. Contact the department for further information.

Program participants may take part in various enrichment activities during the academic year: rappelling, marksmanship, cross-country skiing, whitewater rafting, leadership exercises, orienteering, and formal social functions. Participants may also apply for special Army training courses during the summer, such as airborne, air assault, northern warfare school, among others.

Although some military science graduates make a career out of the U.S. Army, most use their rigorous, Army leadership and management experiences as a



springboard for high-powered careers as entrepreneurs, corporate officers and managers, attorneys, and government executives.

## Faculty

Harry D. Owens, Professor of Military Science. J.D., General Law. University of Detroit. M.A., History, University of Scranton. Lieutenant Colonel, U.S. Army.

**Daniel A. Daley**, Instructor of Military Science. B.A., Criminal Justice Appalachian State University. Captain U.S. Army, Field Artillery.

**Robert F. Hepner**, Instructor of Military Science. B.S., Public Relations, Mansfield University of Pennsylvania. Captain, U.S. Army, Field Artillery.

Advanced Leadership Practicum: A six-week summer training program at an Army installation which stresses the application of military skills to rapidly changing situations. Participants are evaluated on their ability to make sound decisions, to direct group efforts toward the accomplishment of common goals, and to meet the mental and physical challenges presented to them. Completion of this practicum is

required prior to commissioning and it is normally attended between the junior and senior years. Participants receive room, board, travel expenses, and medical care, and are paid for the six-week period.

Leadership Laboratory: Students who enroll in the ROTC program as cadets are required to attend a leadership laboratory one hour a week as a practical application and reinforcement of military skills introduced in the classroom. Students who take MS 101, 102 who do not desire to enroll as cadets are encouraged to attend the leadership laboratory, but are not required to do so.

Financial Assistance: Books and equipment for military science courses and the ROTC program are provided free of charge to all cadets. All juniors and seniors in the ROTC program (advanced course) and scholarship cadets are paid a tax-free subsistence allowance of \$150 a month and receive certain other benefits.

Physical Education Credit: Physical education activity units for military science may be earned for summer camp (two units) and for completion of both junior and senior year levels of military science leadership laboratory (one unit).

Scholarships: Army ROTC scholarships based on merit are available. Recipients receive between \$2,000 and \$12,000 to apply toward tuition; academic fees, a semester book and supply allowance, and \$150 per month in spending money. High school seniors may apply for four-year scholarships. At the start of the spring semester, Dickinson students (whether enrolled or not in ROTC) may compete for three and two-year scholarships. Information may be obtained from high school counselors or any ROTC professor of military science. Recipients agree to a service obligation. Scholarships are also available for students entering a medical school or pursuing graduate studies in the basic health sciences. For additional information contact the chairman, military science department.

Corresponding Studies Program: Students participating in an off-campus study program in the U.S. or abroad may continue participation in either the army ROTC basic course or advanced course and receive

the same course credit and benefits as a student enrolled in the on-campus program. Army ROTC scholarship students are also eligible to participate in this program. For more information contact the chairman, military science department.

Non-Dickinson Students: Students pursuing a baccalaureate or advanced degree program at nearby colleges are eligible to cross-enroll in the Dickinson College ROTC program. These schools have registration or transfer procedures which allow full or partial credit toward graduation for military science courses taken through Dickinson. Contact this department for more information.

#### Courses

101, 102. Introduction to Military Science A critical inquiry into the evolution of the relationship between military policy and the foreign and economic policies of the United States. A careful study of military history designed to foster in the student a balanced judgement of both political leaders and soldiers and of their mutual problems in the conduct of military affairs in peace and war. By means of both written and oral presentations regarding the history of military art, battle history, technical studies and the relationship of the armed forces with society, students will be encouraged to develop a habit of critical reflection. To complement their investigation of military history, students will receive practical instruction in the application of military art and basic soldier skills. One-half course credit.

201, 202. Application of Military Science Advanced instruction in topics introduced in the first year. Participation in operations and basic tactics to demonstrate leadership problems and to develop leadership skills. Meets two hours per week each semester.

211. Organization and Management Concepts of organization theory and the principles of management. Management and leadership relationships are investigated as they apply to the general theory and practice of the management functions of planning, organizing, staffing, direction, coordination, control, innovation and representation. One-half course credit.

301, 302. Advanced Application of Military Science Emphasis on leadership. Situations require direct

interaction with other cadets and test the student's ability to meet set goals and to get others to do the same. Students master basic tactical skills of the small unit leader. Meets two hours per week and selected weekends each semester. Prerequisite: open only to advanced course cadets.

321. Leadership and Management Principles and techniques of effective leadership, methods of developing and improving managerial abilities and leadership qualities, and a basic understanding of interpersonal interactions. Use is made of recent developments in the administrative and the behavioral sciences to analyze the individual, group, and situational aspects of leadership, and the management of resources. *One course credit.* 

401, 402. Command and Staff Emphasis is placed on developing planning and decision-making capabilities in the areas of military operations, logistics and administration. Meets two hours per week and selected weekends each semester. *Prerequisite: open only to advanced course cadets*.

431. Contemporary Problems Seminar Seminars in selected areas emphasizing the interplay of multifarious considerations in exploring the environment of the contemporary American scene, and the position of the U.S. in the world. Normally seminars will be offered in two major areas.

a. Civil-Military Relations—Examines the contemporary U.S. as it relates to the decision-making process affecting the U.S. military establishment. Emphasis is on the interdependence of military, social, legal, and ethical considerations in forming policies, as well as the interchange of influence, the military on society and society on the military. Normally, three problems are examined; these change by semester. Professors from other departments participate as discussion leaders. One course credit.

b. Comparative National Security Policies—Examines the national security policies and postures of the United States, eastern Europe countries, People's Republic of China, and selected other nations. Emphasis is placed on discovering (through independent study, discussion, and common readings) the features common to all major powers so their differences can be better understood. *One course credit*.

## Music

ourses in music and faculty-directed ensembles are offered in the belief that the art of music is an essential aspect of a person's personal, social, and cultural evolution, being a manifestation and reflection of the deepest and most exalted thought and feeling throughout the ages. The art of music is considered in terms of its participation in the intellectual, aesthetic, and spiritual life of the human family. Instruction in music and membership in musical ensembles are offered both to students whose interest is of a general nature and to those who anticipate graduate or professional study. The offerings of the department are designed to enable students to follow a balanced and complementary program of study in four dimensions of music: the study of the literature of music and its cultural context; training in music theory and composition; individual instruction in most instruments, and in voice; and participation in vocal and instrumental ensembles. The goal of the music program is to endow students and participants with lasting understanding and enjoyment of the riches of our musical heritage.

Recent graduates from the Department of Music are professional performers in symphonic ensembles, teaching on the secondary and college level, active in the fields of arts management and music publications and sales, and are music librarians.

## Faculty

Truman Bullard, Professor of Music. Chair. Ph.D., Eastman School of Music of the University of Rochester. He teaches courses in music history and theory, conducts the Choir, and is a bassoonist and pianist. He is an Adjunct Visiting Professor of Musicology at the Eastern School of music. His special courses are in contemporary music, and his research interests are Russian music and culture and American jazz.

Frederick Petty, Associate Professor of Music. Ph.D., Yale University. He teaches courses in music history with specialization in opera and music of the classic

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and romantic eras. He conducts the College-Community Orchestra, and the Wind Ensemble, and plays the French horn. He is an active scholar in the field of 18th century Italian opera and is the music director of the Harrisburg Opera.

Blake Wilson, Associate Professor, Ph.D., Indiana University. He teaches courses in music history, music theory, and directs the Dickinson Collegium. Both as performer and scholar, he specializes in music of the late Middle Ages and Renaissance, and his research interests include the music of renaissance Italy (especially Florence), 14th-century musical culture, historical performance practice, and the relationship between music and other disciplines such as rhetoric, literature, and visual arts.

**Pong-Hi Park**, Senior Artist Faculty in Piano. M.A., Peabody Conservatory of Music. She teaches piano and is a highly acclaimed concert pianist. She performs frequently as soloist, with orchestra, and in chamber ensembles in major cities and colleges.

John Eaken, Artist-in-Residence and Artist Faculty in Music. M.M., Temple University. He offers instruction in the concert violin. He appears each year with major orchestras and in solo recitals and is the winner of several solo competitions and awards. He is a founding member of the critically acclaimed Eaken Piano Trio.

Lynn Helding, Artist Faculty in Voice. Artist Diploma, Indiana University. She teaches both studio and group voice. She has given many solo recitals in the United States, Italy and Iceland, and is an active performer in opera, oratorio and musical theater. She has won various competitions and awards, including finalist in the Metropolitan Opera national auditions. Her special interests include early music and Italian vocal technique.

Nancy Baun, Artist-in-Residence and Part-time Instructor in Applied Music. B.M., New School of Music in Philadelphia. She teaches cello and is a founding member of the critically acclaimed Eaken Piano Trio. An Artists Fellow at the Bach Aria Institute in New York, and the Aspen Music Festival, she appears regularly as a soloist and chamber musician. Ms. Baun also directs the College's Artists-in-Residence Program.

## Contributing Faculty

Ronald Axsom, Symphonic Band
Regina Bautista, String Bass
Beth Bullard, Flute
Beverly Butts, Woodwinds
Douglas Cook, Jazz Ensemble
Carolyn Henry, Trombone and Jazz Improvisation
Eric Henry, Tuba
James Hontz, Guitar
Vanessa Rickert, Trumpet

#### Courses

100. The Art of Music An introductory course intended for those students with little or no previous knowledge of music. Representative works from all periods and styles are studied in such a way as to emphasize the acquisition of permanent listening skills. This course satisfies the distribution requirement for humanities (arts), but does not count toward the major.

101. History of Music An introductory course for students with some previous music experience providing training in intelligent listening through chronological discussion and analysis of selected representative works from the Middle Ages to 1750. This course satisfies the distribution requirement for humanities (arts) and counts toward the major.

102. History of Music An introductory course for students with some previous music experience providing training in intelligent listening through chronological discussion and analysis of selected representative works from the classical period (c. 1750) to the present. This course satisfies the distribution requirement for humanities (arts) and counts toward the major.

103. **20th Century Music** A survey of the major trends in music during the 20th century. *Prerequisite:* 100, 101 or 102 or permission of the instructor.

104. **History of Opera** A survey of operatic literature from its inception to the present. *Prerequisite: 100, 101 or 102 or permission of the instructor.* 

105. **Instrumental Music** A discussion of selected topics in instrumental music, e.g., symphonic literature, chamber music, and keyboard literature. The



content of the course will be altered from year to year in order to provide a diversity of subject matter. *Prerequisite: 100, 101 or 102 or permission of the instructor.* 

106. Vocal Music A discussion of selected topics in vocal music, e.g., choral literature and history of the art song. The content of the course will be altered from year to year in order to provide a diversity of subject matter. Prerequisite: 100, 101 or 102 or permission of the instructor.

107. Biographical Studies A study of the life and works of a major composer, e.g., Bach, Beethoven, Mozart, or Bartok. The content of the course will be altered from year to year in order to provide a diversity of subject matter. Prerequisite: 100, 101 or 102 or permission of the instructor.

108. American Jazz A study of the roots of jazz in social, cultural and artistic dimensions followed by a chronological survey of the evolution of jazz styles from the late 19th century to the present. *Prerequisite:* 100, 101 or 102 or permission of the instructor.

109. Music of India A study of the basic principles and cultural context of Indian classical music, a system that has inspired Western jazz, rock, and classical musicians since the 1950s. The music of several other cultures will be touched upon as well. Prerequisite: one music course (such as 100, 101, or 102 or a high school equivalent) or previous musical experience (such as choir or instrumental ensemble), or permission of the instructor. This course fulfills either the humanities (arts) or comparative civilizations distribution requirement.

110. Music in England A topics course in the history and performance of music which uses the performances of music and the musical settings of London and its environs as part of the study. Taught only in the Summer Session in England program.

112. The Fundamentals of Music Through Voice A course for students who wish to learn to read musical notation at sight in the treble and bass clefs and to sing correctly and expressively. The basics of musical notation in pitch and rhythm are learned using the voice as the instrument. Participants discuss and practice healthy vocal technique, ear training, sight sing, and rhythmic skills. One-half course.

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113, 114. Applied Music Instruction I Open to all students who demonstrate some acquaintance with musical notation, and who should continue to study instrument or voice at the basic level. One-half or one course each semester. Prerequisite: permission of the instructor. Does not fulfill distribution requirements.

125, 126. **Theory of Music I** An introduction to the basic materials of music by means of discussion, analysis, and written exercises, complemented by intensive drill in sight singing, ear training, and keyboard harmony. *Prerequisite: permission of the instructor.* 

213, 214. Applied Music Instruction II Open to students who demonstrate a basic technique, and who should continue instruction on the intermediate level. May be repeated for credit with the permission of the instructor. One-half or one course each semester. Prerequisite: permission of the instructor. Does not fulfill distribution requirements.

245, 246. **Theory of Music II** Introduction to the basic materials of music continued. Evolution of chromatic harmony in the 19th century and selected techniques in 20th century music. Increased emphasis is placed upon stylistic and critical analysis. *Prerequisite:* 126.

301. Historical Performance Practices Methods, materials and issues involved in the performance of music prior to 1850. Ornamentation, improvisation, vocal and instrumental tone color and technique, access to repertory and performing editions. Practical application of concepts. Prerequisite: 100, 101, 102 or permission of the instructor.

313, 314. Applied Music Instruction III Open to students who demonstrate a fully developed technical skill and who should continue study on the advanced level. May be repeated for credit with the permission of the instructor. One-half or one course each semester. Prerequisite: permission of the instructor. Does not fulfill distribution requirements.

351. Seminar in Medieval and Renaissance Music Study of the principal styles and forms of music from plainsong to ca. 1600. Offered every other year. Open to any student with permission of the instructor.

352. Seminar in Baroque Music Study of the principal styles and forms of music from 1600 to 1750. Offered every other year. Prerequisite: 126 or permission of the instructor.

353. Seminar in Classic and Romantic Music Study of the principal styles and forms of music from ca. 1750 to ca. 1900. Offered every other year. Prerequisite: 126 or permission of the instructor.

354. Seminar in 20th Century Music Study of the principal styles and forms of music from ca. 1900 to the present. Offered every other year. Prerequisite: 126 or permission of the instructor.

413, 414. Repertory and Performance The purpose of this course is to acquaint the advanced student with a broad selection of the repertory for voice or instrument, leading to a senior recital or an appropriate public presentation which demonstrates an understanding of several musical periods and performance styles. Prerequisite: one course in music history or theory, at least four semesters of applied music study or its equivalent, and the written permission of the music department upon recommendation of the instructor.

495, 496. Senior Seminar Studies in composition, music history, and advanced theory, conducted through regular conferences and assigned writing. Open to seniors majoring in music who have demonstrated their ability to pursue independent research in at least two courses from this group: 351, 352, 353, 354. Prerequisite: permission of the chairman of the department.

**Note:** Students may withdraw from applied music courses with a full refund (minus charges for lessons taken) up to the end of the add/drop period. After the add/drop period, no refund is made.

#### Co-Curricular Ensembles

College Choir A mixed choir open through audition to everyone in the college community. Several major choral works are performed each year at Dickinson with the College-Community Orchestra. *Permission of the director required*.

Collegium The Dickinson Collegium consists of a small choir of 24 voices, and small instrumental ensembles that perform in conjunction with the choir. The groups specialize in, but are not limited to, music of the medieval, Renaissance and Baroque eras. The Collegium performs in a variety of settings, including an annual Christmas concert in Memorial Hall. The choir rehearses twice a week, and admission is by audition.

**College-Community Orchestra** Open to students and faculty at the college and to instrumentalists from the surrounding area interested in the performance and study of the best in orchestral literature. *Permission of the director required.* 

Dickinson Jazz Ensemble 18 to 20 musicians perform classic and contemporary jazz in this group in concerts and for social occasions. Annual concert with nationally-known guest soloist. Performance at Intercollegiate Jazz Festival and The Montreux (Switzerland) International Jazz Festival represent recent accomplishments. Membership is by competitive audition.

**Symphonic Band** Weekly rehearsal by 50 to 60 instrumentalists interested in the study of quality band literature of various musical periods. *Permission of the conductor is required.* 

Chamber Music Ensembles The music department supports several student chamber music ensembles, including a woodwind quintet and a string quartet. These and other ensembles perform regularly at monthly Noonday Concerts.

## Major

All majors will take a six-course core curriculum including Music 101, 102, 125, 126, 245, 246, plus two courses from Music 351, 352, 353, 354. To complete the 10 course major a student may choose from three options:

Music History emphasis: One additional course from 351, 352, 353, 354, and either Music 495 or 496 (senior seminar) by advisement, culminating in a senior project.

Music Performance emphasis: Music 413, 414 (repertory and performance), culminating in a senior recital.

**Music Theory emphasis:** Music 495 and 496 (senior seminar), culminating in a senior theoretical or compositional project.

**Note:** Permission may be granted by the chairperson to count a course from Music 103 to 111 in all three emphases.

All majors are expected to participate in the performance of music. To this end, applied music instruction is offered at the one-half course per semester level without a fee to majors who have completed four courses from the core curriculum in music or have attained junior year status. Majors with a performance emphasis also take Music 413, 414 at no charge. In addition, membership in at least one cocurricular ensemble is strongly encouraged.

#### Minor

All minors will take the following courses: Music 101, 102, 125, 126; and two courses in Music History or Theory numbered above 102, or Music 413, 414

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# Philosophy

ourses in philosophy present ways of thinking about those fundamental questions which continue to arise no matter how much we think we know: What does it mean to be human? Is there a right way to live as a human? Is there a right way to live as a human? Is there a right way to live together as a society? As a species? What is our relationship to each other and to the earth? Is truth possible? Does history have or make any sense?

Philosophers see questions like these cutting across the boundaries of science, art, politics, religion—crucial to all these areas yet belonging to none of them, and demanding that we subject both our experiences and our beliefs to critical scrutiny.

On the other hand, every culture, every society, every human enterprise, grounds itself on beliefs which try to serve as answers to these fundamental questions. From this point of view, philosophy's task is to remind us that these historical 'answers' are always partial and tentative, never the final word, and that the questions which gave rise to them remain questions in spite of our best efforts. Still, we tend to think of these questions as having been settled by the answers we have given by way of our own belief systems and take those beliefs for granted as The Truth, simply and absolutely. Because it calls back into question those grounding beliefs we otherwise tend to take for granted, philosophy has always been considered central to liberal education, whose point is to generate citizens thoughtful about what is essential.

The philosophy program at Dickinson takes a balanced approach to three main tasks: (1) becoming familiar with the sorts of questions which engage philosophers; (2) critically evaluating the methods, ideas, and ways of thinking that have gone into their attempts to deal with these questions; and (3) making the transition from criticism to the level of original thought, where the questions have become truly one's own. We stress the close reading of primary texts and the ability to see these texts—and the philosophical issues they raise—in their proper historical and cultural contexts.

Because it couples rigor of thought with concern for all aspects of the human condition, the study of

philosophy has always been regarded as an excellent foundation for public service, education, law, or policy-making. Philosophy is an ideal grounding for any field which requires a creative but critical approach to problem-solving, or an ability to get at the presuppositions which underlie our public institutions or our personal commitments.

Because philosophy touches on so many other fields of study, the department strongly supports double majors—typically more than half the department's majors combine their philosophical studies with a major in another area—and interdisciplinary studies. Because experience of another culture is an excellent way of helping put one's own assumptions into questions, the department also encourages study abroad and course which involve the perspectives of other cultures or civilizations.

Our undergraduate major provides a strong foundation for those wishing to pursue graduate work in philosophy. Our alumni have gone on to Ph.D. programs in such institutions as Emory, Chicago, Harvard, Penn State, Pittsburgh, and Vanderbilt. Other philosophy alumni have gone on into law, medicine, teaching, or into fields as diverse as arts management, human ecology, architecture, corporate management, urban planning, computer science, folklore, and film studies.

## Faculty

Philip T. Grier, Professor of Philosophy. Ph.D., University of Michigan. He teaches a variety of courses in social, political, and legal philosophy. He has a special interest in Hegel and the Hegelian tradition, including Marx and the Marxists, as well as in the history of Russian philosophy. He also teaches courses in the philosophical implications of artificial intelligence and artificial life.

Cyril Dwiggins, Associate Professor of Philosophy. Ph.D., Northwestern University. Trained in ancient and medieval philosophy as well as in recent continental thought, he teaches in all three areas, with special attention to the work of Plato, Aristotle, Heidegger, Merleau-Ponty, and Derrida and Levinas. His research interests include contemporary efforts to rethink the ground of ethics, and phenomenological aesthetics. He has written on metaphor, on ethos and ethics in corporate cultures, and on the connections between the aesthetic and the ethical realms.



Susan M. Feldman, Associate Professor of Philosophy. Chair. Ph.D., University of Rochester. Her interests include the history of modern philosophy, the problem of knowledge and skepticism, philosophy of science, and ethics, both "pure" and "applied" to such areas as the environment, the status of women, medicine, and public policy.

## Contributing Faculty

Harry D. Krebs, Professor of East Asian Studies

#### Courses

111. **Problems of Philosophy** An introduction to Western philosophy through an examination of problems arising in primary sources. How major philosophers in the tradition have treated such questions as the scope of human reason, the assumptions of scientific method, the nature of moral action, or the connections between faith and reason.

112. Ethics Major theories in terms of which philosophers have tried to make sense of moral problems. The aims are to expand the student's understanding of

ethical alternatives, to provide models and methods for thinking about moral dilemmas, and to help formulate and clarify one's own ethical position.

113. **Introductory Topics in Philosophy** Introduction to philosophy through the exploration of a specific topic or problem.

121. **Logic** Techniques for analyzing the structure and validity of arguments in a natural language such as English. Also, the study of formal systems of logic and proof techniques in such systems.

210. Philosophy of Feminism Critical examination of key issues concerning the status and roles of women and of the developing theories which describe and explain gender-related phenomena and prescribe change for the future. This course is cross-listed as Women's Studies 210.

241. Ancient Philosophy The emergence of logos out of and in tension with Greek mythos. Presocratic myth. Plato's myth of Logos. Aristotle's Logos of 'Nature'. Retreat from/retreatment of logos after Aristotle. Prerequisite: a previous course in philosophy or permission of the instructor.

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- 242. Medieval and Renaissance Philosophy The problematic of faith and reason. Universals and universities. Neoplatonic and Aristotelian schools. Aquinas, Scotus, Ockham. Paganism, politics, and mysticism in Renaissance thought. Prerequisite: a previous course in philosophy; or History 257; or permission of the instructor.
- 243. Philosophy in the 17th and 18th Centuries Origins of the modern tradition in Western philosophy. Particular emphasis on the problems of method in thinking, the nature and scope of knowledge, the quest for certainty, and views on the nature of reality. Prerequisite: a previous course in philosophy (241 recommended) or permission of the instructor.
- 245. Philosophy in the United States Philosophies shaping and shaped by the beliefs and practices of the American peoples. Sometimes taught historically (Puritans, Federal period, transcendentalism, social Darwinists, pragmatism, contemporary philosophies); sometimes by focusing exclusively on pragmatism and its critics. Prerequisite: a previous course in philosophy or American Studies 201 or permission of the instructor.
- 246. Asian Philosophies Characteristics and problems of thought outside the West. Methods of comparative philosophy. Close examination of works and movements within a major tradition (in different semesters: China, India, Japan, Buddhist schools). Prerequisite: a previous course in philosophy or permission of the instructor.
- 251. Philosophy of Religion What it means to examine the phenomenon of religion philosophically. Problems which come to light from such an examination, such as the nature of religious experience, the relationship of reason and religion, and the meaning of religious language. Emphasis on the variety of forms in which the phenomenon of religion manifests itself. Prerequisite: a previous course in philosophy; or major standing in anthropology, sociology, or religion; or permission of the instructor.
- 252. **Philosophy of Art** What is a work of art? Inquiries into the nature of art and aesthetic experience and of the meaning of literature and the arts in one's own life and the life of a culture. Conversations with local and visiting artists on special problems.

- Prerequisite: a previous course in philosophy; or major standing in a literature, music, or fine arts; or permission of the instructor.
- 253. Philosophy of Society Ways in which one's view of human nature, the human good, and the nature of justice interact in any coherent vision of the structure of a just society. Prerequisite: a previous course in philosophy or major standing in any of the social sciences.
- 254. Philosophy of Science Logic and methods of scientific thinking. The impact of science on the contemporary world. Conceptions of theories and of observable facts. The rationality of science and of choice among theories. General questions about knowledge, values, and ultimate beliefs as they relate to the scientific enterprise. Prerequisite: a previous course in philosophy or major standing in mathematics or any of the natural sciences.
- 255. Philosophy of Law Fundamental problems such as the nature of law, the justification of legal authority, the relationship between legality and morality, the nature of judicial decision-making, theories of punishment, and issues involved in civil disobedience. Prerequisite: a previous course in philosophy or major standing in political science.
- 261. Intermediate Topics in Philosophy Examination of specific problem, author, text, or movement. Prerequisite: a previous course in philosophy, major standing in a field relevant to the subject matter, or permission of the instructor.
- 364. Major Texts in 19th Century Philosophy A seminar centered on a major text or texts of significant 19th century philosophers such as Hegel, Kierkegaard, Marx or Nietzsche. Prerequisite: two courses in philosophy or permission of the instructor.
- 373. Twentieth Century Continental Philosophy Major movements and tendencies in continental European thought since 1900: phenomenology, hermeneutics, existentialism, structuralism, deconstruction. Close study of writings by Husserl, Heidegger, Sartre, Merleau-Ponty, and Derrida. Issues and debates in current periodical literature. *Prerequisite:* 243 and at least one other course in the department; 244 strongly recommended.

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- 374. Twentieth Century Analytic Philosophy A critical examination of key themes in twentieth century Anglo-American philosophy and their fates: the primacy of logic and science, the Cartesian model of the mind and experience, the distinction between the linguistic and the empirical, the gulf between facts and values. Issues and debates in current periodical literature. Prerequisite: 243 and at least one other course in the department.
- 382. Theories of Knowledge Conceptions of knowledge and its limits, and of the nature and possibility of truth. *Prerequisite: two previous courses in philosophy or permission of the instructor. Offered every other year.*
- 383. Theories of the Real Conceptions of what is ultimately real, together with discussions of the nature and limitations of such conceptions. *Prerequisite: two previous courses in philosophy or permission of the instructor. Offered every other year.*
- 384. Theories of Value Examination of the nature and logic of values and evaluations. Sources, scope, and rationality of values. Connections between values and facts. Prerequisite: two previous courses in philosophy or permission of the instructor. Offered every other year.
- 385. Theories of History Speculative philosophies of history which have significantly influenced the shape of Western thought; history of the idea of history. Other topics include the problem of historical explanation, and the notions of historical cause and progress. Prerequisite: two previous courses in philosophy or permission of the instructor. Offered every other year.
- 391. **Seminar** Ordinarily limited to majors or others with a strong background in philosophy. Recent topics have included: Kant's First *Critique*, Hegel's Phenomenology, Postmodern Feminism, Philosophy and Film. *Prerequisite: permission of the instructor.*

Philosophy Colloquium. Informal colloquium bringing the department faculty and students together for discussions of contemporary issues in the field, usually based on selections from recent work or on presentations by visiting speakers.

## Major

Ten courses, including 121, 241, 243, either 373 or 374, and six other courses chosen with the advice of the department, at least two of which must be at the 300 level, and only one of which may be taken as independent study. Majors should complete the logic requirement (121) as soon as possible, and should take 241 and 243 early in the major. For any given term the chairman may designate courses in other programs which may be counted toward the major in philosophy; express permission of the adviser is required in each case.

Declared majors have the right but not the obligation to participate with vote in deciding and implementing departmental policy. Prior to the term in which they exercise this option, majors must have declared their intention to do so; during that term they must attend department meetings and assist in departmental business.

#### Minor

Six courses chosen with the advice of the department.

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# Physical Education

he physical education program plays an integral part in the total education of the students at Dickinson. The program contributes to students' social, physical and psychological development. The major emphasis of the program centers upon the development of skills and understanding of physical fitness activities that can be pursued by students throughout their lives.

The department offers a variety of activities so that each student may have the opportunity to select activities of interest to him or her. The offerings are divided into five components: The Truly Living concepts class, Health-Related Fitness classes, Individual Sport classes, Team Sport classes and Elective classes. Most activity offerings are at the beginning level, although there are some advanced activities offered.

All students at Dickinson must satisfactorily complete five blocks of physical education, one of which will be the required Truly Living course. With exceptions noted in the next paragraph, students will select the other four blocks from each of the remaining four components. Transfer students with junior standing and no previous physical education credit are required to complete only three blocks of physical education (Truly Living Concepts and two activity blocks).

A maximum of two activity blocks may be earned by participation in intercollegiate athletics or by completing two years of basic training in Dickinson's ROTC program. Persons who enter Dickinson after completing at least two years of active military service will be given two activity blocks' credit toward fulfilling the physical education requirement. A maximum of two activity credits may be earned for club sport participation, subject to approval by the Department of Physical Education. Students may repeat a course only with the permission of the chairperson.

During an activity course, a student must demonstrate skills and knowledge of rules in order to receive a passing grade. Attendance and active participation are also used grading criteria. Theory courses are graded according to written evaluations, class participation, assignments, and attendance. All physical education courses are graded pass/fail.

If there is a reason why a student cannot fully participate in the physical education activity program, the student should submit to the department chairperson a medical statement from a physician detailing the extent of the medical problem. Following receipt of this statement, the chairperson will meet with the student to determine appropriate adjustments in the student's program in order that he/she may fulfill the requirement.

## Faculty

Leslie J. Poolman, Physical Educator, Chair of Department of Physical Education, Director of Athletics. Ed.D., West Virginia University. In addition to administering the 22 intercollegiate sports and the extensive physical education program he teaches squash, badminton, and tennis. He is involved at the national committee and coaching association levels in soccer. His professional interests extend to the history and philosophy of sport and the development of soccer in the United States.

Judith M. Yorio, Physical Educator, Director of Truly Living Program. Senior Women's Administrator. Ed.D., University of Georgia. Her present research areas are in motivation and adherence, behavioral fitness, eating disorders, and exercise physiology. Her major teaching areas include racquetball, rope skipping, running, biathlon, and the theory course Truly Living Concepts.

Robert H. Shank, Physical Educator, Head Athletic Trainer. Ed.D., University of Virginia. His major professional interests involve the application of sports medicine and exercise physiology to the areas of prevention, emergency care, and rehabilitation of injuries associated with athletic activities. His other interests include the delivery of emergency medical services and the instruction of emergency first aid and cardiopulmonary resuscitation. Teaching areas include prevention and care of athletic injuries, first aid and CPR, and Truly Living concepts.

Donald J. Nichter, Physical Educator, Men's and Women's Cross Country Coach, Assistant Track Coach, Director of Recreational Sports. M.S., Pennsylvania State University. In addition to administering the intramural and sport club programs, his profes-



sional interests include fitness programming and a scholarly study of the impact of exercise on physical and psychological health. His major teaching areas include running, strength training, racquetball, cycling, aerobic exercise, and the theory course Truly Living Concepts.

**Joel M. Quattrone**, Physical Educator, Assistant Athletic Director, Director of Physical Education Facilities, Assistant Football Coach. M.S., Canisius College. Special interests include strength training and jogging.

Julie A. Ramsey-Emrhein, Physical Educator, Assistant Athletic Trainer. M.Ed., University of Virginia. In addition to the prevention, rehabilitation, and emergency care of athletic injuries, her major teaching areas include Truly Living Concepts and The Prevention and Care of Athletic Injuries. Special interests in anatomy, nutrition, and exercise physiology.

**Darwin P. Breaux**, Physical Educator, Head Football Coach. M.Ed., West Chester University. Major teaching areas are golf, tennis and strength training.

**David N. Frohman,** Physical Educator, Head Men's Basketball Coach. M.Ed., Xavier University. Major teaching areas include Truly Living Concepts, racquetball, squash, basketball, strength training and volleyball.

Anne E. Haynam, Physical Educator, Head Women's Basketball Coach. M.A., Shippensburg University. Interests besides basketball include the history of sport and the development of women's athletics. Teaching areas include Truly Living, tennis, badminton, and golf.

Kelly L. Hart, Physical Educator, Head Coach of Field Hockey and Women's Lacrosse. M.S., Trenton State College. Involved in coaching United States Field Hockey and presently serves on the NCAA, ECAC committees for lacrosse. Teaching includes Truly Living, strength training, tennis, volleyball, and badminton.

**Tracy Santanello,** Physical Educator, Head Track and Field Coach. M.S., Springfield College. Teaching areas include jogging, strength training and hydroaerobics. Special interest in triathlons.

Michael P. Yesalonia, Physical Educator, Assistant Football Coach, Head Men's Lacrosse Coach. M.Ed., Norwich University. Special interest in strength training.

Paul Richards, Physical Educator, Director of Aquatics, Head Men's and Women's Swim Coach. M.S., Indiana University of Pennsylvania. Teaching areas include all aquatic activities. Special interests in

#### **Physical Education Component Areas**

#### **Health-Related Fitness**

Aerobic Activities Aerobic Exercise Step Aerobics Hydroaerobics Jogging Bigthlon

Biathlon Triathlon

Strength Training
Road Racing
Rope Skipping
In-line Skating
Fitness Walking
Fitness Swimming

#### Individual Sport/Activity

Tennis
Squash
Golf
Badminton
Racquetball
Rock Climbing
Scuba Diving

Beginning/Inter. Swimming

Ballroom Dancing Self Defense/Karate Alpine Skiing Modern Dance Jazz Dance Yoga Fencing Ballet Snorkel Diving Tai Ji Quan

#### Team Sport/Activity

Active Games Basketball Soccer Volleyball Team Handball

#### Electives

Non-fitness courses

Prevention and Care of Athletic Injuries

First Aid/CPR Nutrition

or any from the previous categories.

aquatic facility management and design, and sport psychology.

Pamela A. Mehrens, Physical Educator, Head Volleyball and Softball Coach. M.S., North Dakota State University. Teaching interests include racquetball, strength training, and volleyball.

## Physical Education Courses

The Physical Education requirement for graduation is as follows:

Truly Living Concepts 1 block
Health-Related Fitness Component 1 block
Individual Sport/Activity Component 1 block
Team Sport/Activity Component 1 block
Elective Component 1 block

**Intercollegiate Sports** Students will be eligible to receive a maximum of two (2) blocks for intercollegiate participation. Students completing one season of participation in the following intercollegiate sports

will receive credit or the Team Sport/Activity Component:

Football Women's Lacrosse
Men's Soccer Men's Indoor Track
Women's Outdoor Track

Men's Lacrosse Volleyball

Women's Tennis Women's Basketball

Men's Outdoor Track Golf Field Hockey Men's Tennis

Men's Basketball Women's Indoor Track

Softball Baseball

Students completing one season of participation in the following sports will receive credit for the Health-Related Fitness Component:

Men's Swimming Women's Swimming
Men's Cross Country Women's Cross Country

**Note:** All students completing a second season of intercollegiate participation will receive credit for the elective component.

Club Sport Credit All club sports and activities wishing to receive credit must be approved by the Department of Physical Education. A maximum of two (2) blocks may be earned for club sport participation. Following departmental approval, club participants will receive credit according to the nature of the activity.

ROTC Participation Students completing one year of basic training in Dickinson's ROTC program will receive credit for the Health-Related Fitness Component. A student's second year of participation will give him/her credit for the Elective Component.

Additional Information No student will be permitted to repeat a course unless permission is received from the chair of the department. Students are expected to complete the physical education requirement by the end of the sophomore year.

## The Truly Living Program

The Truly Living program was established in response to a growing interest in preventive and maintenance health programs and concern for the development of healthy lifestyles. Truly Living is a "wellness" program designed to benefit Dickinson students, faculty, staff, administrators, alumni and their spouses for many years to come. The Office of Educational Services and the Department of Physical Education, through the implementation of the Truly Living program, provide seminars on smoking cessation and alcohol awareness. In combination with other services and programs, the Truly Living seminars provide the information and inspiration needed to bring about an increased awareness of personal health and life-style factors. This is an education-for-health program.

# Physics and Astronomy

hysics and Astronomy are sciences which unify fundamental elements of the natural world by means of observation, experimentation and mathematical modeling. Dickinson's program serves students who are preparing for careers in physics and astronomy research, those who will use physics in allied fields such as engineering or medicine, those who wish to develop their analytical skills for use in a variety of activities, and those who are interested in the historical and cultural aspects of physics and astronomy. It aims to give the student an insight into the fundamental laws of nature and facility in the mathematical language in which they are expressed.

The introductory laboratory courses in physics are taught in a workshop format in which fewer than 25 students attend three two-hour workshops each week and work directly with physics apparatus and computers to make observations and analyze data. The Physics 131, 132 course sequence is intended for those students who wish to continue in the natural sciences and for freshmen who want to satisfy the laboratory distribution requirement. The Physics 141, 142 course is intended primarily for pre-health students and upperclass students wanting to satisfy the laboratory distribution requirement; it contains additional topics needed by pre-health students and not covered in the Physics 131, 132 course. The introductory astronomy course is divided into class sections of about 30 students. In addition to regular lectures, each astronomy section has one laboratory per week plus observational work. The introductory astronomy courses are intended primarily for non-science students who want to satisfy the laboratory science distribution requirement. The project-based course Workshop Physical Science (Science 101, 102) is another laboratory course sequence intended primarily for non-science majors.

The physics major may take advantage of the combination of a strong and diverse academic program, modern laboratory equipment, low student/faculty ratio and close personal contact with faculty involved in research. We believe that the best preparation both for careers in basic research in physics and allied disciplines, and for other careers that make use of physics, is practical experience. Students studying physics at Dickinson College can be part of a unique, nationally recognized educational program in which observations, practical applications, and mathematical theory are brought together in an integrated fashion in all of the physics courses and research opportunities. Central to this program is the use of projects that focus on real-world applications of physics to motivate the exploration of various topics.

Prospective physics majors would begin their study with a Workshop Physics introductory course sequence (Physics 131, 132 or perhaps 141, 142). In the second year, students engage in a study of the application of waves, optics, electronics and modern physics to practical problems. With the help of an advisor, students next select from courses in astrophysics, electrodynamics and plasma physics, dynamics and chaos, energy and environmental physics, and theoretical physics to design a program shaped to fit their personal interests and goals. In the senior year all students participate in a senior research seminar. In addition to normal course work, physics majors pursue independent study or research with the guidance of a faculty advisor. Students have recently completed projects in radiation physics, plasma dynamics, chaotic systems, astronomical infrared spectroscopy, optical and X-ray observations of variable stars, and the physics of dance. Results of some of these projects have been presented at national conferences and published in professional journals. Internship opportunities with local industries and national laboratories are also available.

The Tome physics building houses two workshop physics laboratories, a large lecture room, an astronomy laboratory, a well-equipped planetarium, one of the few undergraduate plasma physics laboratories in the country, a radiation physics laboratory, an optics laboratory, a physics library. The department has a Sun SPARCstation 5 workstation and approximately 30 microcomputers in the building for student use. Dickinson's Bonisteel-Yeagley Observatory is equipped with a fourteen inch (0.4 meter) telescope and CCD camera. Dickinson is also a charter member of the National Undergraduate Research Observatory Consortium.

Dickinson physics majors have entered a wide variety of careers after graduation. Some have research

positions in physics, astrophysics and engineering. Others are working in high school teaching, planetarium work, computer engineering, space physics, health physics, meteorology, environmental control, and sports science. Many others have gone on to jobs in diverse fields such as public service, community development, law, medicine, city planning, and technical sales.

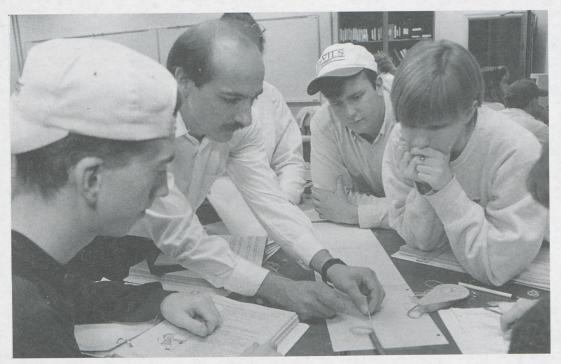
### Faculty

Kenneth L. Laws, Professor of Physics. Ph.D., Bryn Mawr College. Following research in solid state physics, he moved into the area of biomechanics of dance. That work has resulted in many articles and presentations, and two books *The Physics of Dance*, 1984 and *Physics, Dance, and the Pas de Deux*, with coauthor Cynthia Harvey, 1994. Teaching interests include electronics and meteorology.

Priscilla W. Laws, Professor of Physics. Ph.D., Bryn Mawr College. Since receiving her doctorate in nuclear physics her interests have expanded to include radiation dosimetry, health effects of diagnostic x-rays, laboratory applications of microcomputers, apparatus design, and curricular development. She is the author of two books on medical x-rays, and has received awards for curriculum development and for the development of physics education software.

Neil S. Wolf, Professor of Physics. Ph.D., Stevens Institute of Technology. The plasma physics of fusion reactors and space is his primary research interest. Students at Dickinson have helped to build several large experiments which have been used to study waves and instabilities in highly ionized gases. He is currently researching computer simulations of plasma waves. His courses include classical mechanics, electrodynamics, statistical physics, energy and the environment, and history of science.

John W. Luetzelschwab, Professor of Physics. Ph.D., Washington University. His background is nuclear physics although now his basic research interest is in environmental radioactivity, radon, and the health effects of radiation. He is directing a project that monitors radioactivity in the air around the Three-Mile Island Nuclear Power Station. His other interests are concerned with energy production, use, and conservation, particularly energy conservation in the home.



T. Scott Smith, Professor of Physics and Astronomy, Director Bonisteel Planetarium. Ph.D., University of Maryland. Although his major areas of research and teaching have been theoretical astronomy and astrophysics, he also has considerable interest in the history of science and science/society interactions past (megaliths/archeoastronomy), present (environmental crisis), and future (science fiction) both in the Western and non-Western traditions. Most recently, he supervised a senior thesis on the cometary origin of Earth's water. (On leave Spring 1997)

Robert J. Boyle, Associate Professor of Physics and Astronomy. Chair. Ph.D., Yale University. An observational astronomer by training, he also has an interest in laboratory astrophysics. His major research interests involve infrared astronomy, studies of old stellar systems, and variable stars. He is a frequent observer at Kitt Peak National Observatory and Cerro Tololo Inter-American Observatory and collaborates with astronomers at other national facilities and at the National Undergraduate Research Observatory. His teaching activities include introductory physics, introductory astronomy, theoretical physics, and a variety of other topics in physics and astrophysics.

Hans Pfister, Assistant Professor of Physics. Ph.D., University of California at Los Angeles. His main interest lies in basic plasma physics research, in particular the dynamics of current systems in space and laboratory plasmas. He has also worked in the field of nuclear magnetic resonance. Other interests include physics puzzles, tricks, and toys, as applied to the physics classroom. He is presently involved in the development of various kinesthetic apparatus that allow the incorporation of students into physics experiments enabling them to experience forces, accelerations, etc. on their own bodies. He is also a faculty member for IMAST, the initiative for Integrated Math and Science Teaching of the Commonwealth Partnership.

Windsor A. Morgan, Jr., Assistant Professor of Physics and Astronomy. Ph.D., the Pennsylvania State University. His major area of research is evolution of X-ray-emitting active galactic nuclei, in particular their spectra. He also studies new statistical methods of studying astronomical surveys, the formation of hydrocarbons in the early solar system, and the nature of x-ray binary star systems. Other interests include the presence of women and minorities in science—

astronomy in particular. Teaching activities include introductory astronomy and physics, introductory astrophysics, and electricity and magnetism.

David P. Jackson, Part-time Assistant Professor of Physics. Ph.D., Princeton University. His main research interests are in pattern forming systems, and he has specialized in the maze-like labyrinths formed in seemingly unrelated systems. Current projects include both analytic and numerical work on the early development of these patterns as well as a study of the fractal-like final state shapes. Other interests involve the mathematical and scientific literacy of non-science majors and he is currently developing curricula in this area.

### Courses in Astronomy

105. Life in the Universe A comprehensive study of the astronomical possibilities of extraterrestrial life including a brief survey of the universe, conditions necessary for life, and astronomical observations (including UFOs) which support or deny the premise that life in the universe is a common phenomenon. Offered in summer school only.

107, 108. **Astronomy** Similar to 109, 110 described below, but without laboratory work. 107 and 108 will not count toward major requirements in physics and will not satisfy the one-year laboratory science distribution requirement. Either course will, however, count as the third required course in Distribution III. Please read Note.

109, 110. Astronomy Introduction to the modern concepts of the physical nature of the astronomical universe. First semester: historical development of astronomical ideas and origin and evolution of the solar system. Second semester: cosmology and the structure and evolution of the stars and galaxies. A terminal laboratory course for non-science students. Three hours classroom, one two-hour laboratory a week. This course will not count toward major requirements in physics, but will satisfy the one-year science distribution requirement. Please read Note.

## Courses in Physics

102. **Meteorology** The physical basis of modern meteorology: characteristics of atmospheric motions,

clouds, and weather systems; methods of weather observation and forecasting; meteorological aspects of air pollution. Satisfies the one-course distribution requirement in Division III, but may not count toward a physics major. (See also Physics 202.)

\*131, 132. Introductory Physics An introduction to basic physics topics using the workshop method. This method combines inquiry-based cooperative learning with the comprehensive use of computer tools for data acquisition, data analysis and mathematical modeling. Kinematics, Newton's Laws of motion, conservation laws, rotational motion, and oscillations are studied during the first semester. In the second semester topics in thermodynamics, electricity, electronics and magnetism are covered. Additional topics in chaos or nuclear radiation are Basic calculus concepts are used introduced. throughout the course. Recommended for physical science, mathematics, and pre-engineering students and for biology majors preparing for graduate study and for students who wish to satisfy the twosemester, lab science sequence distribution requirement. Three two-hour sessions per week. Prerequisite: Completion of, or concurrent registration in, Mathematics 151, 152 or 161. (Students enrolled in Physics 132 who have completed Mathematics 161 are encouraged to continue their mathematics preparation while taking physics by enrolling in Mathematics 162.)

\*141, 142. Physics for the Life Sciences Introductory, non-calculus physics, principally for life science and pre-med students. Topics include mechanics, thermodynamics, acoustics, optics, electricity, magnetism, and modern physics. Three two-hour workshop sessions a week. Please read Note.

202. The Physics of Meteorology The physical basis of meteorology, characteristics of atmospheric motion, clouds and weather systems. The course deals with current weather as determined by observation, local weather instruments, and current data and displays obtained from computer networks. Similar to Physics 102, but with additional emphasis on mathematical analysis of physical atmospheric systems. *Prerequisite: 131 or 141 or permission of the instructor.* 

211. Vibrations, Waves, and Optics The physics of periodic motions, oscillating systems, resonances,

propagating waves and optical phenomena. The course is centered around various projects such as the investigation of a car suspension system, the study of a tuned-mass-damper in a high-rise building, the quality factor of an osteo-arthritic knee joint, and an examination of the Fourier spectrum of different musical instruments. *Prerequisite: 131 and 132 or 141 and 142, and Math 161 or Math 151 and 152 or permission of the instructor.* 

- 212. Medical & Radiation Physics A project-based course studying atomic and nuclear physics as they apply to medical and health physics. Projects, including the detection and measurement of ionizing radiation, investigation of Magnetic Resonance Imaging, radioactive decay, and radiation dosimetry, are used to understand the concepts of the atom, nuclear structure, quantum mechanics, and relativity. Prerequisite: 132 or 142, and Math 162 or permission of the instructor.
- 213. Analog and Digital Electronics Circuit design and the analysis of electronic devises. Modern digital and analog circuit elements, including diodes, transistors, op amps, and various integrated circuits, are used in amplifiers, power supplies, and logic circuits. Class and laboratory work are integrated during class time totaling up to seven hours per week. Students design and build projects at the end of the semester. *Prerequisite: 132 or 142 or permission of the instructor.*
- 282. Introduction to Theoretical Physics A project-centered approach to topics in theoretical physics. Projects will be selected to motivate a review of multivariable calculus and then stimulate the investigation of a number of mathematical tools including the nabla operator, Gauss' and Stokes' theorem, Legendre and Bessel functions, and Fourier analysis. The applications of some topics in linear algebra and the theory of functions of a complex variable may also be examined. Prerequisite: 211 or permission of the instructor. Corequisite: Mathematics 261 or permission of the instructor.
- 306. Introduction to Astrophysics A project-based course in selected areas of astrophysics closely allied to the development of the physical sciences in the twentieth century, including atomic spectroscopy, stellar atmospheres and stellar magnetic fields,

nuclear reactions, energy generation and nucleosynthesis in stars; the structure and evolution of planetary surfaces and atmospheres. *Prerequisite: 211, 212 or permission of the instructor.* 

- 311. Dynamics & Chaos A project-oriented study of advanced classical mechanics using vector calculus and including an introduction to the analysis of chaotic systems. Topics include particle dynamics in one, two and three dimensions; harmonic oscillators and chaos theory; central force motion; collisions and conservation laws; rigid body motion; and rotating coordinate systems. Examples of projects include projectile motion with air resistance; motion of a chaotic pendulum; computer simulation of gravitational orbital transfers; and the vibration modes of a baseball bat. Prerequisite: 211 or permission of the instructor. Corequisite: 282 or permission of the instructor.
- 312. Electrodynamics and Plasmas A project-oriented study of electrostatics, magnetostatics, and electrodynamics in vacuum, in dieletrics, and in plasmas. Vector calculus and computer programming are used throughout this course. Examples of projects include the experimental study of the electrostatic fields of capacitors in air and in dielectrics, mapping of magnetic fields, and charged particle motion in a variety of electric and magnetic field configurations. Prerequisite: 211 and 212 or permission of the instructor. Concurrent enrollment or prior completion of 282 or permission of the instructor.
- 313. Microcomputer Interfacing A study of the electronics necessary to understand an example of the interface between the digital world of the computer and the outside world of variable quantities. Digital recording is one such example, including audio frequency signal amplification, conversion of information to digital form, interfacing to the computer, manipulation and storage of information, and output interfacing, along with the computer programming necessary. Offered every two years. Prerequisite: 213 or permission of the instructor.
- 314. Energy & Environmental Physics A projectoriented approach to the study of the thermodynamics of fossil fuel engines and devices, the physics of solar and other alternative energy sources, energy conservation principles, the physics of nuclear fission reactors and nuclear fusion research, the physics

of the atmosphere, air pollution, global climate change, and ozone depletion. Examples of projects include: energy conservation analysis, and the design, construction and testing of modern wind turbines or solar energy sources. Offered every two years. Prerequisite: 131 and 132 or 141 and 142, and 212 or permission of the instructor.

315, 316. Health Physics A project-based course studying the effects of ionizing radiation and methods of calculating radiation dose. Projects, including radon studies, statistics experiments with radiation, neutron activation, and radiation dosimetry, are used to study topics such as the build-up and decay of radioactive nuclei, internal dosimetry, external protection, and nuclear instrumentation. The areas covered in Physics 212 are extended to include radiological safety in nuclear power plants, hospital, and research facilities. Two courses. Offered every two years. Prerequisite: 212 and Mathematics 162 or permission of the instructor.

317. Nuclear and Health Physics Laboratory Basics of nuclear and health physics instrumentation. Topics include pulse counting; use of multichannel analyzer; alpha, beta, and gamma detection; TLD dose measurements, counting statistics; neutron activation; environmental radiation detection; decontamination; and shielding. One-half course. Offered every two years. Prerequisite: 212 and Mathematics 162 or permission of the instructor.

361. **Topics in Modern Physics** Topics to be selected from areas such as atomic, nuclear, plasma, or solid state physics, or modern optics and acoustics, or advanced electronics. *Prerequisite: 211 and 212*.

392. **Physics Seminar** Student reports and discussions on several topics in contemporary physics. Emphasis is on the development of bibliographic skill, seminar presentation and report-writing techniques, as well as increasing the breadth and depth of the student's knowledge of recent research. *Prerequisite: 232 and permission of the instructor. One-half course.* 

406. Advanced Astrophysics A project-based course in selected areas of astrophysics. Topics selected from areas of astronomy and astrophysics that require a background in dynamics and electromagnetism. Topics may include celestial mechanics and

orbit determination, numerical simulation of manybody systems, galactic dynamics, spectroscopy and electrodynamics of the interstellar medium, or general relativity and cosmology. *Prerequisite: 311, 312* or permission of the instructor.

412. Laboratory and Space Plasmas A continuation of the topics covered in Physics 312 with an emphasis on electromagnetic waves in air, in conductors, and in space plasmas. Projects include the study of electromagnetic waves in waveguides, plasma waves in space, electromagnetic radiation from antennas, and the equilibrium and stability of plasmas. Prerequisite: 312 or permission of the instructor.

431. Quantum Mechanics Basic postulates are used to develop the theoretical framework for quantum mechanics. The course deals with measurements on quantum systems, the uncertainty principle, the Schrödinger wave equation and the probability interpretation, Heisenberg's matrix mechanics, eigenfunctions and eigenvalues, finite and infinite dimensional vector spaces, operator methods, and enables students to use the Dirac formalism for quantum mechanical manipulations for a variety of situations and systems. *Prerequisite: Permission of the instructor.* 

432. Topics in Theoretical Physics Intended for students planning to continue their physics education in graduate school. Topics will include those mathematical and theoretical subjects not covered in earlier courses taken by the particular students enrolled. Offered every two years. Prerequisite: At least seven previous courses in physics or permission of the instructor.

491, 492. Senior Research Seminar Integration of theory and experiment in the conduct of research in contemporary physics or astrophysics, normally conducted in groups. The course emphasizes collaborative research, investigative techniques, and oral and written communication, and culminates in a colloquium presentation and a paper. Two courses. Prerequisite: Physics major senior status. The two semester sequence (or 491 + Independent Research for candidates for departmental honors) are required for the major.

## Health Physics

Health physics is the field of study concerned with radiation safety in nuclear power plants, hospital radiation facilities, and research institutions and industrial facilities that use radioactive materials.

The Dickinson Physics and Astronomy Department offers courses and laboratories that prepare a student to enter this field. Physics 315 and 316 or laboratory project courses that introduce the student to the field of health physics. These courses are taught either as a regular course or as an independent study depending on the number of students enrolled. Physics 317 is a half-course laboratory that explores laboratory techniques in more detail. Generally a student does an internship at a nearby research hospital. Independent studies are available in environmental, medical, and nuclear power plant health physics.

**Note:** Because of similarity in course content, students will not receive graduation credit for both of the following pairs of courses: 102 and 202, 107 and 109, 108 and 110, 131 and 141, 132 and 142.

### Major

A physics major consists of a minimum of 10 courses, usually four core courses, at least four electives, and two courses of research during the senior year. Students should be aware that most physics courses have mathematics corequisites and/or prerequisites, as listed in the course description. Courses above the 200 level typically require a facility with multivariate calculus (normally requiring completion of three courses in mathematics). Each student majoring in physics is expected to acquire a basic knowledge of classical and modern physics by taking a core sequence consisting of two semesters of workshop physics (131, 132 or 141, 142) followed by 211 and 212. Students will then select at least four elective courses tailored to their preparation, interests, and goals. At least two of these must be at the 300 level or above. All physics majors not enrolled in a 3-2 engineering program must complete the senior research sequence 491, 492 or 491, 550 (Independent Research) for those who are candidates for Departmental Honors. In general the introductory courses intended primarily for non-science majors, Life in

the University (105), Introductory Astronomy (109, 110 or 107, 108) and Meteorology (102) may not be applied towards a physics major.

## Minor in Physics

A physics minor is expected to acquire a basic knowledge of classical and modern physics by taking six of the department's course offerings, including a two semester workshop physics sequence (131, 132 or 141, 142) and 212. The remaining three courses required for the minor must be at or above the 200 level. A student may not apply courses used to fulfill the requirements of a minor in physics to fulfill the requirements of a minor in astronomy.

## Major in Astronomy

While no major exists in astronomy, options are available for students who wish to add an astronomy minor to a physics major, to a major in a related natural science (mathematics, computer science, chemistry or geology, for example), or who wish to add an astronomical perspective to a major in any other field. the minor consists of at least six regularly offered courses, independent study, independent research or internship credits offered by the Department of Physics and Astronomy. for students who are not physics majors, three of these six must be in astronomy or astrophysics. Physics majors who also wish to minor in astronomy must take at least five courses beyond the ten physics courses required for the major, at least four of which must be in astronomy or astrophysics.

# Policy Studies

Policy Studies is an interdisciplinary approach to the study of policy making and the implementation of policy decisions in the public and private sectors. The program is designed to develop an understanding of the economic, political and cultural constraints that shape policy decisions as well as the ethical values which policies promote. Broadly, the concerns of the program are reflected in such questions as "What is the public interest?," "How well do private and public decisions made in alternative economic, political and cultural systems reflect the public interest?," and "How do economic, political and cultural institutions affect the implementation of public and private decisions?"

Students will study economic, political and cultural issues and institutions examining them in their overlap of four arenas: contemporary policy questions cross the permeable boundaries between these arenas, possible responses will be explored through interdisciplinary perspectives and techniques, ranging from anthropology through religion. In doing so, students and faculty will examine the interactions of socio-economic and political forces. Also examined are the structural and cultural contexts that condition making, implementing and criticizing policy decisions.

Courses in the program will challenge students to consider the full implications of actual or proposed policy decisions and in this way help them to understand the various sorts and levels of commitment that shape our society. In learning how to analyze problems, students will become sensitive to the limits of rationality, to constraints in the cultural and physical environments, and to the complex relationships that connect those environments.

## Contributing Faculty

- \*William Bellinger, Associate Professor of Economics
- \*Mara E. Donaldson, Associate Professor of Religion (On leave Fall 1996)
- \*Cyril W. Dwiggins, Associate Professor of Philosophy
- \*Susan M. Feldman, Associate Professor of Philosophy

- Michael J. Fratantuono, Associate Professor of Economics (On leave 1996-97)
- Michael Heiman, Associate Professor of Environmental Science and Geography
- Eugene W. Hickok, Jr., Associate Professor of Political Science (On leave 1995-97)
- \*James M. Hoefler, Associate Professor of Political Science, Coordinator
- Candie Wilderman, Associate Professor of Environmental Science, (On leave 1996-97)
- \*Members of the PS Steering Committee for the 1996-1997 academic year.

## Major

Thirteen course credits: two prerequisite courses and 11 course credits in the core of the major, including a one course credit internship (or one-half course credit internship plus a related one-half course credit independent study).

Only two of the courses in the major are taught by faculty directly connected with the Policy Studies program. They are a two credit foundations course and a one credit senior seminar. The rest of the courses taken for the major will come from the course offerings in the various departments at the college, selected by the student in consultation with the student's adviser. The normal way to proceed through this major is to complete the two prerequisite courses, take the foundations course, fill in the major with appropriate electives and finally finish with the senior seminar.

Acceptance as a major requires satisfactory completion of the prerequisite courses and foundations course by the spring semester of the sophomore year and approval by the Steering Committee. Normally, no more than four courses—the two prerequisite courses and two other courses—can be taken for credit toward this major prior to completing the foundations course.

A maximum class size for the foundation course is established in order to provide students with adequate opportunity to interact with the teaching faculty and with other students, an interaction which is vital in actual policy making processes. As a result, students may not always be able to gain access to this course and thus the major. During any given registration period enrollment preference is normally given to sophomores who have completed both prerequisite courses. *Prerequisite: see listing below.* 



Students working on a double major must work closely with their Policy Studies adviser in planning their major to insure that it constitutes a major substantially different in content from their second major. Normally, more than a three course overlap with the second major will require special consultation with the Steering Committee.

200. Foundation Course This course is required for entry into the Policy Studies major. It is a two-credit, team-taught course (participants are from economics, political science, and philosophy or religion) offered every spring semester. This course focuses on the economic, political and cultural constraints on the process of policy making and implementation, as well as the ethical values that policies promote. The cornerstone of this course is a research project that focuses on the formulation of public policy responses to some significant social problem. Problems tackled in the past year have included education, health care, and poverty in America. Prerequisite: Political Science 120 and Econ 100 or 111.

If you are interested in registering for the Foundations Course, you will be required to write a brief essay (no more than two typed, double-spaced pages),

explaining (1) why you are interested in the Policy Studies major, and (2) how you think this major will enhance your education in the liberal arts. Essays are typically due to the Policy Studies coordinator during the spring pre-registration period, which usually occurs in the late October-early November time frame.

401. Senior Seminar A seminar in selected topics. Required of senior majors.

**Substantive Concentration:** (at least three courses in one of the following areas agreed upon by the Steering Committee and the student candidate).

- Issues in the Public Sector: e.g., health, education, welfare, income security, transportation, civil rights, minorities, criminal justice, mass media.
   Examples of courses that students might take in this area include: Economics 344 (Public Finance), Economics 214 (A Contemporary Economic Issue), and Political Science 222 (Public Policy Analysis).
- Issues in the Private Sector: e.g., resource allocation in market economies, industry organization and industrial performance, labor problems.
   Examples of courses that students might take in this area include: Economics 350 (Industrial Organization and Public Policy), Economics 353 (Economics of Labor) and Economics 347 (Money and Banking).
- Resource Management: e.g., energy, environment, population, oceans, science and technology. Examples of courses that students might take in this area include: Environmental Studies 131, 132 (Environmental Science), Economics 222 (Environmental Economics) and Geology 131, 132 (Physical and Historical Geology).
- 4. International Affairs: e.g., trade, finance, development, foreign and defense policy, comparative public policy. Examples of courses that students might take in this area include: Political Science 170 (International Relations), History 382 (Diplomatic History of the US) and Economics 348 (International Economics).

Structural Context Courses (at least one): Courses offered in various departments which emphasize the organizational and structural processes through which decisions are made and which complement the student's concentration. Examples include: Economics

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112 (Introductory Macroeconomics), Political Science 220, 221 (Constitutional Law I and II) and Political Science 150 (Comparative Politics).

Quantitative Reasoning (at least one): Courses offered in various departments which deal with the tools of critical thinking that are needed to understand, conduct, communicate the results of, and assess policy analyses that are grounded in numerically based data. Examples include Math 120 (Quantitative Reasoning) and Math 121 (Elementary Statistics), Political Science 239 (Research Methods), and Economics 474 (Econometrics).

Ethics and Culture (at least two; one Ethics course and one Culture course): Courses offered in various departments which deal with the ethical and cultural dimensions of decision-making, as follows:

Ethics: Students are required to take at least one course directly concerned with ethics, such as Philosophy 112 (Ethics), Philosophy 253 (Philosophy of Society), Philosophy 255 (Philosophy of Law), Religion 218 (War and Western Values), Religion 314 (Topics in Religious Ethics), or Environmental Studies 111 (Environment, Culture and Values). Note: prospective majors are encouraged to take the ethics course, if possible within their first three semesters.

Culture: Students are required to take at least one course which studies one or more cultures in terms of their respective value assumptions, such as American Studies 201 (Introduction to American Studies), Anthropology 215 (Anthropology of Political and Legal Systems), or Religion 110 (Religion and Modern Culture).

Internship (one course credit): An internship experience which will be related to the student's substantive concentration. All internships must be approved by the Steering Committee. Students are normally expected to work with a member of the Steering Committee in developing internships but students may work with any faculty member at the college as their internship adviser. The internship experience may also be satisfied by a one-half credit internship combined with a related one-half credit independent study.

#### Honors

The Policy Studies Program offers students the opportunity to graduate with honors in their major. To earn departmental honors a student must undertake two semesters of independent research beginning in the seventh semester of study and culminating with a presentation and defense before the Policy Studies Steering Committee at the conclusion of the eighth semester of study. The grade on the independent research will be determined by the student's research adviser, while the decision to grant honors will be decided by the Steering Committee based on the presentation and oral defense. The two course credits earned for the independent research may be used to count toward the 11 credit core.

To participate in the honors program a student must submit a research proposal to the Policy Studies Steering Committee no later than one week after the start of the student's seventh semester. Part of this proposal must be an explanation of how the independent research fits into the student's Policy Studies major. Upon approval of the proposal the student will be allowed to register for the independent research.

# Political Science

Jolitical science analyzes political systems, actors, and processes on the local, national, and world levels. In doing so the department seeks to expose students to a variety of methods-theoretical, empirical, historical, normative-in the subfields of American politics, political theory, comparative politics, and international relations and to faculty who represent a broad spectrum of philosophical perspectives. Although political science is one of the social sciences, our faculty have skills and interests that range from humanistic concern for values to mathematical tools for quantitative research. Some of these interests are reflected in their activities outside the department in such programs as international studies, Latin American studies, comparative civilizations, the Bologna Program, the Washington Semester, and policy studies.

Departmental goals for faculty and students include the mastery of facts, the examination of values, the sharpening of analytical skills, and the formulation of considered views. Whether they go on to become lawyers, business executives, local or national civil servants, journalists, or dentists, our graduates are likely to be more responsible students and practitioners of the science and art of politics.

# Faculty

J. Mark Ruhl, Glenn E. and Mary L. Todd Professor of Political Science. Chair. Ph.D., Syracuse University. He specializes in comparative politics and international relations. His research centers on the politics of democratization and structural economic adjustment in contemporary Latin America.

**Douglas T. Stuart,** Robert Blaine Weaver Professor of Political Science. Ph.D., University of Southern California. His teaching and research interests include international relations theory, national security affairs, Asian and West European security.

**David Strand,** Professor of Political Science. Ph.D., Columbia University. His field is 20th century Chinese politics and history with related interests in comparative social and political development. H. L. Pohlman, Associate Professor of Political Science. Ph.D., Columbia University. His specialty is Constitutional law and American legal-political thought. (On leave 1996-97)

Eugene W. Hickok, Jr., Associate Professor of Political Science. Ph.D., University of Virginia. His teaching and research emphasizes American government and politics. His courses focus upon the relationship between theory and practice in the institutions of government and the influence of Constitutional principles in American politics. Recent research has focused upon the role of the Congress and the Presidency in shaping the Supreme Court and federalism as a Constitutional principle. He maintains an ongoing interest in policy studies. (On leave 1995-97)

Russell Bova, Associate Professor of Political Science. Ph.D., Indiana University. His fields are comparative politics and international relations with a special interest in post communist Russia and East Europe. Current research activities focus on the politics and economics of transitions from communist rule.

James M. Hoefler, Associate Professor of Political Science. Ph.D., SUNY at Buffalo. He specializes in American politics with particular emphasis in public policy analysis, state and local government, and public administration. Current research interests include health care reform and the right to die.

Stephanie Greco Larson, Associate Professor of Political Science. Ph.D., The Florida State University. She teaches American national government, with special emphasis on mass media and politics, political behavior, and race and gender issues. Her current research includes ABC News' "Person of the Week."

John S. Ransom, Assistant Professor of Political Science. Ph.D., Columbia University. His teaching includes history of western political thought, Marxism, Liberalism and its critics, and political theory. His current research centers on the evolution of Michel Foucault's thought from a structuralist to a Nietzschean framework. Future research may include the problem of the "post-modern" era raised by Foucault and other contemporary thinkers.

Pernilla M. Neal, Assistant Professor of Political Science. Ph.D. University of Colorado. The exercise of

power by global actors, the practice of diplomacy and the formulation of foreign policy are her three principal areas of interest. Her geographical area of specialization is Western Europe.

Christopher M. McMahon, Assistant Professor of Political Science. M.A., University of Utah. His fields are public policy and law with particular emphasis on policy implementation and environmental regulation. Current research focuses on comparative environmental policies in the areas of hazardous waste and acid rain.

**A. Lee Fritschler,** President of the College, Part-time Professor of Political Science. Ph.D., Syracuse University.

#### Courses

The following courses are grouped according to the four major subfields of political science: political theory, American politics, comparative politics, and international relations. Introductory and intermediate courses are numbered in the 100s; advanced courses are numbered in the 200s. Within the 100 and 200 ranges, numbering sequences reflect subdivisions of the field, not level of difficulty.

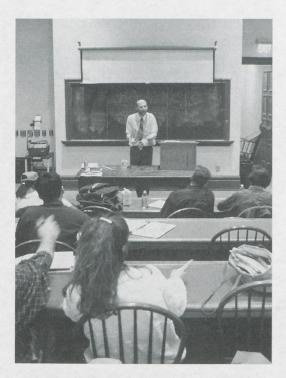
#### **Political Theory**

- 101. Introduction to Political Philosophy An introduction to the history of Western thought on the problems of the possibility of knowing political justice and creating a just polity. Major texts from the tradition will be discussed.
- 202. Recent Political Thought An introduction to the political thought of the 20th century focusing on the works of Weber, Freud, Dewey, Strauss, and others. *Prerequisite: 101 or permission of the instructor.*
- 205. American Political Thought An historical exposition of the ideals of American political culture. Concepts that will be addressed include natural law, liberty, constitutionalism, democracy, equality, and privacy. *Prerequisite: 120 or permission of the instructor.*
- 207. **Marxist Political Thought** An examination of the political philosophy of Karl Marx, Lenin, Trotsky, and others within the tradition of Marxist scholarship and politics. *Prerequisite:* 101 or permission of the instructor.

#### **American Politics**

- 120. American Government A basic introductory course in American federal government which emphasizes its structure and operation as well as modern methods of analysis. Special attention is given to the executive, legislative, and judicial processes.
- 220. Constitutional Law I An analysis of constitutional adjudication in the areas of separation of powers, federalism, and economic rights. Special emphasis is placed upon the idea of a written constitution and the role that judges play in our constitutional system. Topics include Watergate, war powers, and legislative veto. *Prerequisite: 120 or permission of the instructor.*
- 221. Constitutional Law II An exploration of American constitutional rights. Both historical developments and contemporary issues are addressed. Topics include racial and sexual equality, affirmative action, seditious speech, and school prayer. *Prerequisite: 120 or permission of the instructor.*
- 222. Public Policy Analysis The purpose of this course is to acquaint students with the concepts embraced in policy analysis and the methods employed by those individuals who study and analyze public policy. It is designed not only to provide a working knowledge of technique but also a knowledge of the intellectual support for that technique. Some emphasis will be placed upon the economic approach to public policy and the implications of that approach. Prerequisite: one course in political science or economics.
- 231. Public Administration An analysis of the organization and functioning of the national bureaucracy in a democratic society. Special attention is given to presidential management, theories of organization, independent regulatory agencies and bureaucratic pathology, financial and personnel administration, and administrative responsibility. *Prerequisite: 120 or permission of the instructor.*
- 241. Women and Blacks in American Politics Have women and blacks achieved political equality in America? How have racism and sexism gotten in the way? This course will examine women and blacks in the political process by studying their social movements, interest groups, public opinions, and representation in government. Special attention will be paid to issues which impact women and blacks (such as affir-

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mative action and abortion). Prerequisite: 120 or permission of the instructor.

242. **Political Behavior** Cultural, social, and psychological factors which contribute to forms and directions of political behavior. Special attention is given to American voting behavior, ethnic political behavior, and personality influences on politics. Field surveys are undertaken to illustrate contemporary trends. *Prerequisite: 120 or permission of the instructor.* 

243. Mass Media and American Politics Examines the causes, content, and consequences of political news, primarily focusing on television. It will explore the ways in which audience characteristics, organizational routines, and professional socialization influence the style and substance of the news. The content of news will be analyzed for: the three branches of government, war, foreign governments, crises, and presidential campaigns. The impact of the media on political behavior will also be discussed. Content analysis will be used by students to systematically analyze television network news. *Prerequisite: 120 or permission of the instructor.* 

244. **Public Opinion** Examines the origins, nature, and impact of public opinion in the United States. The ways that the public's attitudes are shaped and used by interest groups, politicians, and the mass media will be discussed. Methods of measuring public opinion, with special attention to polling, will be studied. *Prerequisite: 120 or permission of the instructor.* 

245. Political Parties and Interest Groups A study of the functions, structures, and operations of American political parties and interest groups. Special attention is given to the techniques of running a campaign for office, to the role of the media in superseding American parties, and to the interactions of government with the two largest "interest groups": business and labor. *Prerequisite: 120 or permission of the instructor.* 

246. The Legislative Process An analysis of the legislative branch of government, especially Congress. Emphasis is placed upon the legislature as a social system, the decision-making process, the interrelationships with the political parties and interest groups, the executive and the judiciary. *Prerequisite: 120 or permission of the instructor.* 

247. **The American Presidency** An in-depth analysis of the nature and significance of "the Man" and "the Office," including constitutional development, presidential roles and customs, the recruitment process, the executive branch, and the politics of the presidency. *Prerequisite: 120 or permission of the instructor.* 

248. **The Judiciary** A study of the structure and the processes of the American judiciary. The adversarial system, plea bargaining, sentencing, and legal reasoning are all examined. Special attention is given to the federal judiciary, especially the Supreme Court. *Prerequisite: 120 or permission of the instructor.* 

249. American Federalism This course examines the practical policy consequences of America's constitutional alliance between 50 state governments and the general union. Politics in the American states will provide the substantive focus for discussions about the complex and ever-changing intergovernmental relationships that constitute American federalism today. Note: Students who have taken 141 (Policy Making in State and Local Governments) or 290 (American Federalism) may not take 249 for credit. Prerequisite: 120 or permission of the instructor.

#### **Comparative Politics**

- 150. Comparative Politics An introduction to comparative political analysis with applications to political systems, processes, and issues in countries of the Third World and in advanced industrial states alike. The purpose of the course is to learn to observe systematically, to analyze political phenomena, and to distinguish and evaluate the assumptions underlying alternative approaches to the study of politics.
- 250. Comparative West European Systems European parliamentary institutions analyzed as alternative liberal-democratic systems. Particular attention is paid to the British cabinet form, the French presidential form, the Italian coalition form, and the German federal form.
- 251. Latin American Government and Politics An introduction to the politics of contemporary Latin America. Emphasis is placed upon the varied political institutional responses to socio-economic change in the Americas. Major countries to be analyzed include Argentina, Brazil, Mexico, and Cuba. *Prerequisite: one course in political science or Latin American studies*.
- 252. African Government and Politics An introduction to the politics of contemporary, sub-Saharan Africa. After analyzing the historical and socio-economic context of African politics, the course examines a number of contrasting political systems in depth. The final section of the course discusses the current problems of South Africa from an international perspective. *Prerequisite: one course in political science.*
- 253. Postcommunist Politics: Russia and East Europe A comparative examination of contemporary politics in Eastern Europe, Russia, and other successor states to the former USSR. The course will analyze the legacy of communism and the issues and dilemmas of the postcommunist transition. Topics covered include political change and democratization, the politics of economic reform, and postcommunist nationalism. Prerequisite: one course in political science or Russian Area Studies or permission of the instructor.
- 254. Comparative Asian Governments and Politics Comparison of selected Asian political systems with special attention given to the emergence of new nations from old cultures, contrasting patterns of political and economic development, and the current

- state of political affairs in each country studied. Prerequisite: one course in political science or East Asian studies.
- 255. Chinese Politics An introduction to the contours of contemporary politics as shaped by traditional and revolutionary legacies, the institutions of state socialism, China's underdevelopment and struggles over power and policy.
- 256. The City An introduction to urban politics from a broadly comparative vantage point. Topics include the socioeconomic and cultural bases of city politics, power struggles and policy making within urban political arenas, and the relationship between urbanization and political development.

#### **International Relations**

- 170. **International Relations** Analysis of the capabilities, limitations, and patterns of interaction of state and non-state actors in their pursuit of multiple objectives in the international system.
- 273. International Political Economy An analysis of the interplay of politics and economics which will focus on the ways in which political realities both shape and are shaped by international economic relations. Issues related to the North-South, East-West, and intra-Western dimensions of the international political economy will be addressed. This course will include a brief survey of the fundamentals of trade and money for those without prior course work in economics. *Prerequisite: 170 or permission of the instructor.*
- 275, 276. **Studies in Modern European Politics** To be offered only in Bologna.
- 280. American Foreign Policy Since 1945 A survey of U.S. foreign policy since World War II. American approaches to such issues as containment, detente, arms control, deterrence, international law, and third world economic development will be discussed. Students will also address issues of U.S. foreign policy formulation, including the roles of the public, congress, and the president in the foreign policy process. *Prerequisite: 170 or permission of the instructor.*
- 281. American National Security Policy Analysis of formulation and implementation of American national security policy within the context of American soci-

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ety and the international system. National security will not be considered simply in a military/strategic sense but as connoting the preservation of the core values of a society. *Prerequisite: 170 or 120 or permission of the instructor.* 

283. Russian Foreign Policy An examination of the patterns, instruments, and sources of Russian conduct in the world arena, viewed in light of the communist legacy, Russian national interests, and the contemporary international system. Political, military, and economic dimensions of Russian foreign policy will be addressed. *Prerequisite: 170 or 253 or permission of the instructor.* 

#### **Special Topics Courses**

190, 290. Selected Topics in Political Science Topics not normally studied in depth in the regular offerings are analyzed in these special topics courses. Recent offerings have included: Contemporary Political Ideologies, Mexican Politics, Political Thought of the enlightenment, Politics in Fiction, Separation of Powers, The Bill of Rights, and Italian Politics.

239. Research Methods Helps the student answer (in the affirmative) the question, "Is political science a science?" Students will learn how to generate and test hypotheses through creating and executing research designs. Survey research, experimentation, content analysis, participant observation, and other methodologies will be studied. Although no prior knowledge of statistics is necessary, Math 120 and/or Math 121 are helpful. This class is especially recommended for prospective graduate students in the social sciences.

390. Seminar A seminar in selected topics in Political Science. Recent offerings have included: Political Leadership, Crime and Punishment, Democratization, Presidential Elections, Revolutions and Political Thought, Constitutional Politics, International Regimes, Russian Leadership Politics, Central American Politics, and Comparative Political Modernization.

# Major

Ten courses, including Political Philosophy (101), American Government (120), International Relations (170), any course in Comparative Politics (150, 250, 251, 252, 253, 254, 255, 256, 270, and, when appropri-

ate, 275, 276, 190, 290) and a 390 seminar. This seminar is normally to be taken on campus. No course may be taken Pass/Fail. Normally five courses must be taken in residence.

### Honors

The department offers an honors option. Prerequisites are a GPA of 3.0 in all courses and 3.25 in political science courses. Two faculty members will serve as first and second readers or advisers. The option: Two semesters of independent research, beginning in the sixth or seventh semester, culminating in the presentation and defense of a paper. (See page \*\* of the current catalogue for the detailed presentation of what is involved in this option.)

#### Minor

Six courses. Coursework submitted for the minor must be from at least four of the subfields: political theory, American politics, comparative politics, and international relations.

# Off-Campus Study

Majors may apply to spend one or two semesters off campus in a variety of programs: e.g., the Washington Semester at American University or Dickinson's Center for European Studies in Bologna, Italy.

# Portuguese

See Spanish

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# Psychology

sychology emerged as an intellectual discipline in the late 19th century as the culmination of developments in philosophical speculation about human nature, advances in scientific study of sensation and perception, and attempts to measure behavior objectively. Today psychology is defined as the scientific study of behavior and mental processes. Psychology includes such diverse topics as learning, intelligence, memory, motivation, perception, social interaction, judgement processes, development, and the causes and treatment of mental illness. Psychologists study these topics using various methods, including the laboratory experiment and field study, and they obtain information from both human and nonhuman animals. The unifying thread is that psychologists are committed to studying behavior and mental processes from an empirical perspective.

Through the curriculum, students become skilled in scientific methods of conducting psychological studies. By the time of their graduation, psychology majors will have taken at least four courses in general and specialized methods of performing psychological research and will have conducted a senior project to demonstrate their grasp of psychological methods and content. The department seeks to accommodate a variety of student interests in the psychological sciences.

### Faculty

Larry A. Engberg, Associate Professor of Psychology. Ph.D., University of Colorado. As the department's resident behaviorist, his teaching and research interests are in the experimental analysis of behavior and theories of learning. Research interests include animal analogues to human behavior such as "Learned Helplessness" and "Learned Laziness," attentional processes in animals, autoshaping, and the nature of the operant. He has a strong secondary interest in the use of computers in psychology.

James A. Skelton, Associate Professor of Psychology. Chair. Ph.D., University of Virginia. His teaching interests are in social psychology and in the philosophy and design of psychological research. His research interests include self-perception of bodily states, interpersonal issues in health care, and psychology applied to social problems. (On leave 1996-97)

Gregory J. Smith, Associate Professor of Psychology. Ph.D., SUNY at Buffalo. His teaching is in the area of child development and encompasses courses on both typical and atypical development. His current research focuses on the ways that individuals learn complex strings of behavior, specifically comparing learning new behaviors in a forward sequence with learning behaviors in a backward sequence (the last behavior learned first, then the next-to-last, etc.).

Walter Chromiak, Chair. Associate Professor of Psychology. Ph.D., Temple University. Perception, memory, and thinking are the focus of his teaching and research. He is especially interested in the development of skills, from learning how to play chess to learning how to bake bread. Currently he is completing a book on the biological and psychological bases of talent.

Teresa A. Barber, Assistant Professor of Psychology. Ph.D., University of California, Berkeley. Professor Barber is the biological psychologist in the department, teaching a variety of classes that examine the relationship between the nervous system and behavior, including classes in neuropsychology, the study of damaged brains and impaired behavior. Professor Barber's research focuses on the biological changes induced in the nervous system by learning. She studies the mechanisms and processes associated with acquisition and storage of information using a diversity of approaches. She is particularly interested in how the brain stores memories in relation to pathological states of memory storage, such as Alzheimer's disease.

Bonnie B. Dowdy, Assistant Professor of Psychology. Ph.D., Virginia Commonwealth University. Professor Dowdy is a developmental psychologist whose area of specialization is adolescence. Her research focuses on parent-adolescent communication, dating relationships, and autonomy development. Her teaching interests focus on contextual influences on healthy development, particularly family and school influences.

Christopher Silva, Assistant Professor of Psychology. Ph.D., University of Connecticut. Dr. Silva is a clinical psychologist. His teaching interests include theory and research in the areas of: personality; causes, diagnosis and treatment of mental disorders; psychotherapy; and psychological testing. His research interests focus on variables associated with imaginative abilities and hypnotizability, including fantasy proneness and dissociation.

Davis C. Tracy, Director of Counseling Services, Parttime Assistant Professor of Psychology. Ph.D., University of Tennessee. A counseling psychologist whose research activities have focused on self-efficacy theory and public speaking anxiety. A practicing psychologist who directs the College's Counseling Services and serves as a supervisor to psychology students who perform senior experiences in community agencies.

#### Courses

- 110. **Principles of Behavior** This is an introduction to the elementary principles governing the behavior of both humans and non-human species. These principles, derived primarily from experiments using animals, are shown to be applicable to the prediction and control of a wide variety of human behaviors. This course employs a self-paced, mastery approach to learning and includes laboratory sessions.
- 125. Biological Psychology This course will introduce the structure and function of biological processes as variables that influence human behavior. Findings from such fields as neuroanatomy, neurophysiology, and endocrinology will be considered in their relation to a number of behavioral processes.
- 130. Perception, Memory, and Thought This introduction to cognitive psychology will cover such topics as: How do you recognize your grandmother? Can you do more than one thing at a time? Why can't you remember the names of people you just met? More formally, we will examine the processes of perception, attention, representation, and retrieval in children, adults, and machines.
- 140. **Social Psychology** In this introduction to psychological aspects of human social behavior, we discuss such topics as the relationship between attitudes and behavior, how people judge one another, interper-

- sonal and group influence processes, and relations between individuals and groups, with strong emphasis on real-world applications. We also introduce scientific methods and formal theories for studying social behavior.
- 155. Child Development This introduction to development psychology will cover such topics as: What are the processes of prenatal development and birth? How does an infant learn about the world around him or her? How do children develop as social beings? And, how do the cognitive abilities of thought, language, and memory develop?
- 165. **Psychopathology** An introduction to various psychological disorders and techniques of diagnosis and treatment. Relevant for students who anticipate careers in medicine, law, and the social or psychological services.
- 170. Adolescence and Youth In this introductory course in developmental psychology, we will examine the ways biological, psychological, and social processes combine to shape development during the second decade of life. A primary focus will be on the individual and cultural differences that result from contextual variability in these processes.
- 180. Topics in Psychology Students gain an appreciation of psychological principles by reading about and discussing a topic of interest. Course topics range from contemporary issues and historic controversies to broad themes. Recent topics courses have included Cross Cultural Psychology, Human Sexuality, Personality, and Sleep and Dreams.
- 185. **Survey of Psychology** A survey of areas of contemporary psychological study to acquaint students with viewpoints, findings, and techniques of investigation of the discipline.
- 201. Design of Psychological Research Readings and laboratory exercises introduce students to bibliographic resources in psychology, rules of valid scientific inference, and techniques for conducting psychology experiments. Three hours classroom plus two hours laboratory a week. Prerequisite: any 100-level course.
- 202. Analysis of Psychological Data In this course, one of the core requirements for the major, our focus

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is how to make sense of numerical information. Students learn to describe and analyze data. Everyone is expected to devise an original study and analyze hypothetical data from it. Three hours classroom plus two hours laboratory a week. Prerequisite: 201.

310. Research Methods in Animal Learning An exploration of advanced problems in animal learning, the stimulus control of behavior, attentional models and cognitive processes in animals. Students collect and analyze data and produce written reports relating their empirical findings to psychological theory. Three hours classroom plus laboratory a week. Prerequisites: 110, 201 and 202.

325. Research Methods in Biological Psychology A comprehensive coverage of the research methods employed in the field of biopsychology. Students conduct research on the relationship between the nervous system and/or the endocrine system and human behavior. Three hours classroom plus three hours laboratory a week. Prerequisites: 125, 201 and 202.

330. Research Methods in Cognitive Psychology Students devise, conduct, analyze and prepare written reports of experiments on topics such as autobiographical memory, time management, techniques for improving learning, and decision-making. Three hours classroom plus three hours laboratory a week. Prerequisites: 130, 201 and 202.

340. Research Methods in Social Psychology We conduct empirical studies in order to become familiar with techniques for measuring attitudes and social behavior in the field and the lab, for analyzing and evaluating data, and for reporting findings and conclusions. Students gain direct experience in the process of conducting research studies by working as experimenters and data analysts. Three hours classroom plus three hours laboratory a week. Prerequisites: 140, 201 and 202.

355. Research Methods in Child Development An advanced presentation of the research methods and statistical techniques used by developmental psychologists including cross-sectional, longitudinal, and sequential designs. Students conduct laboratory and field-based research and develop original research proposals in the area of child development. Three hours classroom plus three hours laboratory a week. Prerequisites: 155, 201 and 202.

365. Research Methods in Clinical Psychology This course will introduce various strategies used in empirical research of clinical phenomena. Practice in behavioral observation systems, structured clinical interviews, and assessment techniques will be gained as students conduct research and write research reports in the area of clinical psychology. Three hours classroom plus three hours laboratory a week. Prerequisites: 165, 201 and 202.

370. Research Methods in Development After Childhood In a series of group projects, students will design and conduct studies of development during adolescence and adulthood. In addition to basic techniques of experimental, observational, interview, and survey research, students will be introduced to the special design requirements of studying age-related change. The course will emphasize the relationship between question, hypothesis, and research design and use the contextual variability as a tool for understanding development. *Prerequisites: 170, 201 and 202.* 

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- 410. Seminar in Learning Theory An advanced course for students with a strong background in the psychology of learning, this seminar examines the evolution of formal theories of learning during the last century. Topics covered include Pavlov's cortical theory of classical conditioning, Hull's hypothetico-deductive theory of learning, Skinner's radical behaviorism, and Tolman's cognitive maps in mice and men. *Prerequisites: 201, 202 and 310.*
- 425. Seminar in Biological Psychology An advanced seminar into the relationship between physiological systems and behavior. This course will include coverage of mammalian brain organization and function in terms of transmitter systems which are correlated with the interactions between anatomy, physiology, and behavior. *Prerequisites: 125, 201 and 202.*
- 430. Seminar in Cognitive Psychology Students will present and discuss one or more topics in human cognition using primary sources. Possible topics include, but are not limited to, intelligence and creativity, the development of physical and mental skills, changes in learning and memory as we age, and thought in humans and machines. Students will write several essays that explain and evaluate the concepts that are discussed. *Prerequisites: 130, 201 and 202.*
- 440. Seminar in Social Psychology In this seminar, we read and discuss primary sources in theoretical or applied social psychology. Previous seminars have looked at applications of social psychology principles in law, medicine, mental health, consumer behavior, conservation, and education, and theories of social construal, social influence, and social systems. Students are responsible for leading class sessions and contributing to a group document, such as an annotated bibliography or literature review. *Prerequisites: 140, 201 and 202.*
- 455. Seminar in Developmental Psychopathology Applying a developmental perspective in which clinical disorders are viewed as either quantitative deviations from normal development or qualitatively distinct disorders this course will study the history, methods, procedures, empirical facts, and theories that influence the conceptualization of and treatment of clinical disorders in children. *Prerequisites: 155, 201 and 202.*

- 465. Seminar in Clinical Psychology Students read and discuss primary sources in theoretical and applied clinical psychology to gain a deeper understanding of the processes of assessment and treatment used with various psychopathological conditions. *Prerequisites:* 165, 201 and 202.
- 470. Seminar in Adolescent Development Ecological systems theory focuses on the complex interaction of person and environment throughout the life course. Based on the premise that biological, social, and cognitive processes will vary as a function of person and context, this approach uses such variation to provide insight into human development. Students will apply this approach to the study of adolescence through discussion, readings, and both formal and informal writing. *Prerequisites: 170, 201 and 202.*
- 480. Advanced Topics in Psychology Advanced seminar in which students become actively engaged in reading about, reviewing, and discussing selected topics of importance in the discipline. Recent advanced topics courses have included The Psychology of Law and Medicine, Psychopharmacology, The Psychology of Groups, and Psychology of Identification. *Prerequisites: 201, 202 and permission of the instructor.*
- 491. Senior Field Work Encompassing a practicum in psychology where the student gains direct experience in an applied psychological setting, this course is reserved for those students who have proven themselves in the undergraduate offerings relevant to those aspiring to social or psychological careers of human services. This course fulfills the department requirement for a Senior Experience. Prerequisites: 201 and 202, plus senior psychology major status and permission of the instructor.
- 492. Senior Independent Study This course allows students to explore areas not covered by our traditional course offerings or to do in-depth study of material which was introduced during prior course work. Senior Independent Study projects are expected to be largely self-initiated and self-directed. This course fulfills the department requirement for a Senior Experience. Prerequisites: 201 and 202, plus senior psychology major status and permission of the instructor.

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493. Senior Independent Research Independent Research projects are expected to be largely self-initiated and self-directed and must constitute an original contribution to the discipline of psychology. In most cases will involve formulation of hypotheses, data collection, statistical analyses of the data and integration of the results with the existing literature. This course fulfills the department requirement for a Senior Experience. Prerequisites: 201 and 202, plus senior psychology major status and permission of the instructor.

# The Senior Experience

Each Senior Experience provides the student with the opportunity to do significant work in an independent fashion. The requirement may be fulfilled by successful completion of any of the following: 491, 492, 493. Common requirements of all Senior Experiences include: (1) a final paper which provides a detailed description of the senior experience, and (2) a presentation at a department poster session to be held at the end of each semester. Senior Experiences are intended as culminating experiences in which majors bring to bear the knowledge, methodologies, and techniques which they have acquired over their undergraduate years.

# Departmental Honors

Departmental Honors are granted to students who demonstrate their eligibility by fulfilling these requirements: By the end of the Junior year, obtain approval of an Honors Project proposal from at least three psychology faculty. The proposal is to consist of a plan to earn at least one credit for independent study and/or independent research during each semester of the Senior year. Psychology 492 or 493 may be used to fulfill one of these credits. By the beginning of the Senior year, earn a GPA of at least 3.25 in (a) courses taken in Psychology and (b) all other courses taken at the College. Provide a written copy of the final project report to each Psychology faculty member by April 15 of the Senior year. Present and defend the project to an assembly of psychology faculty by May 1 of the Senior year. Receive a favorable vote from psychology faculty for the written and oral presentations of the project.

# Independent Options for Non-Seniors

Exceptional sophomores and juniors may participate in traditional internships, independent study, and independent research projects (see Catalogue section entitled "Special Approaches to Study"). However, these will not fulfill the requirement for a Senior Experience in Psychology.

# Internships and the Senior Practicum

Only one internship or practicum may be counted towards the minimum 10 courses required for the psychology major. Therefore, students may not receive psychology credit for both a traditional internship and Psychology 491.

### Major

Ten courses, two at the 100 level; 201, 202, two at the 300 level, one at the 400 level (numbered below 490), one of the following: 491, 492, 493, and two additional courses in psychology.

These courses must be taken in the department: 201, 202, two courses at the 300 level, one course at the 400 level, and one course from 491, 492, or 493. Exceptions to this rule may be granted to students who petition the department chair.

### Minor

Six courses, including 201 and 202 and a course from the 300 level group of research methods classes. Normally, four of the six courses (including the 201, 202 sequence and the 300 level course) must be completed in the department.

# Religion

"Religion is the sigh of the oppressed creature, the feeling of a heartless world, and the soul of soulless circumstances."

Karl Marx

"If you understand, things are just as they are. If you do not understand, things are just as they are."

Zen Buddhist saying

"Feminist spirituality proclaims wholeness, healing love, and spiritual power not as hierarchical, as **power over**, but as **power for**, as enabling power."

Elizabeth Schussler Fiorenza

"Miss Celie, you better hush. God might hear you."
"Let 'im hear me, I say. If he ever listened to poor colored women the world would be a different place, I can tell you."

Alice Walker, The Color Purple

"We Sioux believe that there is something within us that controls us . . . what other people might call soul, spirit or essence. One can't see it, feel it or taste it, but that time on the hill—and only that once—I knew it was there inside of me."

Lame Deer

"Call it what you like. All that stuff to me is just bad sex."

Frank on religion in the play Equus

"If you notice that in the morning a bird remains sadly sitting on a branch: this is because it has not yet said good morning to God."

Agni drum text, Africa

The study of religion is increasingly multi-cultural and cross-disciplinary, sensitive to plurality in world-views and difference in methods. The Department of Religion encourages students to take a self-critical step back from their engagements in familiar traditions and cultures. At the same time it encourages them to imagine and evaluate alternatives that transcend their own experiences through the empathetic

consideration of perspectives other than their own.

The department offers courses both for the general liberal arts student and for the student interested in majoring in religion. By emphasizing the development of skills in critical analysis and verbal and written expression, the courses prepare students for many possible careers.

### Faculty

Stanley N. Rosenbaum, Professor of Religion and Classics. Ph.D., Brandeis University. He is a trained historian and Biblicist. Special interests include American Jewish history and literature and Jewish-Christian relations.

Mara E. Donaldson, Associate Professor of Religion. Ph.D., Emory University. Her teaching focuses on contemporary religious thought, especially feminist and liberation theologies, and religion and art, including contemporary fantasy literature, film, and popular culture. (On leave Fall 1996)

Daniel G. Cozort, Associate Professor of Religion, Chair. Ph.D., University of Virginia. His courses explore the thought and practices of Indian religions, particularly Hinduism and Buddhism. His research in Tibetan Buddhist thought has taken him into the esoteric tantric tradition and into Indian and Tibetan Mahyamika philosophy. He has a special interest in meditation theory and practice.

Theodore Pulcini, Assistant Professor of Religion. Ph.D., University of Pittsburgh. His teaching responsibilities focus on exploring the Biblical texts in their historical, social, and comparative contexts. He also specializes in Islam, early Christianity, and Eastern Orthodox Christianity. Research interests include relations between Islam and Christianity, both past and present.

Wayne Whitson Floyd, Assistant Professor of Religion. Ph.D., Emory University. His teaching inquires about the enduring contributions of western religious thought to the larger project of human self-understanding. In particular he is interested in the Bible and its interpretations, religion and ecology, myths of creation, social ethics, and holocaust studies. (Fall 1996)

# Contributing Faculty

David Commins, Associate Professor of History Harry D. Krebs, Professor of East Asian Studies

#### Courses

All 100-level courses, regardless of their specific content, provide students with a basic introduction to the academic study of religion. Sophomores and juniors may take a 200-level course as their first course in religion, and seniors are encouraged to begin at this level. 200-level courses are more specific than 100-level courses but are not necessarily more difficult. 300-level courses are discussion-oriented seminars open to students who either have at least one previous course in religion, have junior or senior status, or have the permission of the instructor.

- 103. Hebrew Scriptures in Context A critical examination and attempt to understand the literature and the antecedent traditions remembered and formulated by the ancient Israelites in terms of their own views of God. This literature is interpreted in the context of events and cultures of the ancient Near East.
- 104. Introduction to Judaism A basic course in the history, basic beliefs and practices, and modern manifestations of Judaism as a religion. The course concerns itself with the interactions of Judaism and other world religions, notably Christianity. This course is cross-listed as Fudaic Studies 104.
- 107. New Testament in Context A critical examination and attempt to understand the New Testament as the written traditions which articulated the faith, expectations, and actions of the early Christians as they responded within Jewish and Greek culture to the historical events of their day, and especially as they responded to the life and death of Jesus of Nazareth.
- 110. Religion and Modern Culture Drawing upon popular examples from film, drama, and narrative, as well as critical essays, the course explores both the religious dimensions of modern culture—myth, sacred space and time, nature spirituality—and the cultural contexts of contemporary theologies—gender, race, economics.

- 111. What is Religion? An introduction to the study of religion that assesses as possible answers to the course title a selected range of individual and social experiences, expressions, and interpretations. Although the course is not a survey of world religions or a study of theories of religion, it examines phenomena from many religions and employs a variety of methods of analysis.
- 121. What is Hinduism? A study of the dominant religion of south Asia that focuses on the contemporary "embodiment" of religion in culture. This course will explore ways in which religion permeates the Hindu cycle of life, shapes choices such as occupation and marriage partner, and infuses Indian arts. It will ask whether the variation in these patterns over time, among regions of India, in city and country, and among different groups, are diverse "Hinduisms" that nevertheless contain a vital unity.
- 122. What is Buddhism? A study of Asia's most influential religion that focuses on the contemporary "embodiment" of religion in culture. This course will explore ways in which Buddhists have used visual arts, music, drama, asceticism, devotion, etc., to attain spiritual goals and express enlightenment. It will look at both monastic and popular Buddhism, concentrating on South and Southeast Asia but with some reference to East Asia and the West.
- 130. **Religions of East Asia** An introduction to the formative role of religious consciousness in the development of the cultures of China and Japan.
- 201. **Buddhism in Tibet** Studies in Buddhist philosophy and practice in Tibet.
- 203. Bible and Contemporary Issues An exploration of the impact of Biblical world views, perspectives, and laws upon the generation and resolution of contemporary problems such as environmental abuse, sexism and sexual problems, injustice, and war.
- 206. Jews and Judaism in the United States Traces the history of Jewish immigration to America and how the American experience has produced and nurtured new forms of Judaism, notably Reform and Conservative. The course concentrates on the last hundred years of American history and includes such

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topics as anti-Semitism, the Holocaust, and Israel. *This course is cross-listed as Judaic Studies 206.* 

207. Holocaust & Future of Religion The course begins by looking at the variety of approaches to the Holocaust or Shoah. Second, it inquires into the roots of the Holocaust in Christian religious anti-Semitism. Third, the course examines the genocidal events of the Shoah itself and the responses to those events by a small resistance movement within Germany. Fourth, the course concludes by looking at the various responses to the Holocaust, attempting to understand its impact on the future of religion itself.

208. Religion in the United States The course chronicles the relationship between religious ideas and cultural context from the founding of the first colonies through the rise of the Religious Right and New Age movements. Our journey will be guided by several key metaphors that have characterized the religious ethos of America. America as "The Promised Land": America as the "land of opportunity," as the "melting pot." We will use primary sources, including fiction, poetry, and film.

209. Religion and the Literary Imagination Examines the variety of ways that religious themes—grace, evil, redemption—and genres—parable, apocalypse—are reflected, transformed in Biblical, classical, and contemporary literary texts.

211. **Religion and Fantasy** An exploration of the religious and mythological dimensions of traditional and modern fantasy literature. Our explorations will be guided by three interdependent themes: the nature of the divine, the nature of the human, and the nature of the moral life.

212. History of Christianity: From Margin to Center The course traces the emergence of Christianity from its beginnings as a minority sect in the first century to the height of its influence in 14th century. Special attention will be given to cultural and aesthetic influences on the emerging Church. Not open to students who have taken 108.

214. History of Christianity: Reform and Modernity The course concentrates on the emergence of the Protestant tradition in the 16th century and the Catholic response. Considers the impact of the Enlightenment on both Protestant and Catholic self understanding. Not open to students who have taken 109.

218. War and Western Values Literary and philosophical expressions of the experience of war; analyses of the nature of war in human affairs, and of restraints on and in war; assessment of the "special case" of nuclear armaments and strategies.

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- 219. History of the Jews Willing or not, Jews have participated in world history since the dawn of civilization in the Middle East, ca. 3000 b.c.e. This course surveys the part Jews have played, concentrating on the interplay between Jews, Christians, and Muslims. Not open to students who have taken this course as 204 or 205. This course is cross-listed as Judaic Studies 219.
- 221. Hindu Myth and Ritual Indian mythology, perhaps the richest in the world, is learned (and sometimes created) through ritual celebrations that reenact and re-interpret myth episodes and themes and in other ways relate the human to the divine. The primary aim of the course is to relate mythology to the stages of life and to popular beliefs and practices. Not open to students who have taken this course as 200.
- 226. Yoga: Theory and Practice Yoga is an ancient Indian religious philosophy with a unique and complex world view. The Yoga system sees the human and the cosmos as homologous and therefore places special emphasis on the control of the body and mind in its pursuit of the realization of ultimate reality. In order to test Yoga's assertions about the effect of physical and contemplative techniques, students will participation in a lab section in addition to lectures and discussion. Not open to students who have taken this course as 200.
- 230. **Buddhism in China and Japan** A study of the many phenomena of Chinese and Japanese Buddhism: historical development, socio-cultural context, personalities, texts, practices, thought, and aesthetics.
- 241. **Topics in Arts, Literature, and Religion** (e.g., Religion and Psychology; Faith and Identity; American Jewish Fiction; Jesus in Theology, Art, and Literature; Religion and Film) *These courses are not open to students who have taken them under old course numbers*.
- 250. Topics in Religion and Gender (e.g., Goddess and Devotee; Women & Religion; Sexuality and Spirituality; Women-Centered Theologies) These courses are not open to students who have taken them under old course numbers.
- 260. Topics in Religious Traditions (e.g., Islam; Native American Religions; Mask and Reality: African Religions) These courses are not open to students who have taken them under old course numbers.

- 310. **Topics in the Study of Myth** (e.g., Comparative Mythology; Myths of Creation)
- 312. Topics in the History of Christianity (e.g., Contemporary Roman Catholic Thought; Medieval Mysticism; Christianity in Crisis; Augustine of Hippo; Greek and Russian Orthodoxy)
- 314. **Topics in Religious Ethics** (e.g., Bonhoeffer, Peace and War; God and Evil; Religion and Ecology; Contemporary Christian Ethics)
- 316. **Topics in Judaic Studies** (e.g., Twentieth Century Jewish Thought; Principles and Topics in Jewish Law) *This course is cross-listed as Judaic Studies 316*.
- 318. **Topics in Religion and Culture** (e.g., Religion and Science; Encounters with Death; Liberation Theologies)
- 320. **Topics in Indian Religions** (e.g., Hindu Theology; Buddhist Tantra; Enlightenment in Comparative Perspective)
- 330. **Topics in East Asian Religions** (e.g., Zen; Confucianism and Taoism; Chinese Folk Religions)
- 390. Interpreting Religion An advanced introduction to some fundamental issues of theory and method in the academic study of religion. Selected religious phenomena will be examined using the perspectives such as those of the history of religions, psychology, sociology, anthropology, philology, philosophy, and art history. Emphasis will be placed upon methods of research and styles of writing in the study of religion.
- 490. Seminar: Critics of Religion "What is needed," Nietzsche wrote, "is not the courage of our convictions but the courage to attack our convictions." This seminar examines critiques of religion made by critics such as Freud, Nietzsche, Feuerbach, and Marx as well as Job, Jesus and others both within and outside of our traditions.

#### 550. Independent Research

# Major

Students will become acquainted with two traditions in their historical and cultural contexts and have

some experience placing them into dialogue with one another. They will be able to assess and critically reflect upon the contemporary significance and consequences of religious beliefs and practices. They will understand what religion looks like from at least two major alternative perspectives (e.g. as a social, ethical, or aesthetic phenomenon) and/or disciplines (e.g., history, literary theory, anthropology) demonstrating their skills in critical thinking and cross-disciplinary study. Finally, they will know the varieties of methods in the study of religion, including formal, functional, and existential approaches and the assumptions and implications involved in using those methods. It is strongly recommended, though not required, that students attempt to take courses with all members of department. In addition, the department encourages students when possible to take or use the language appropriate to their area of interest and to use offcampus experiences as a way to use approaches learned in the classroom.

**Option A.** Gives the student a working knowledge of a broad range of religious traditions and perspectives. The courses in Option A provide the foundation in the study of religion which the department considers necessary for today's liberally educated person. Of the 10 courses required in this option, no more than four may be at the 100-level, at least two must be at the 300-level, and at least one (such as Religion 490) must be at the 400-level or above. The following guidelines apply:

- Two courses for which approaches to the study of religion are the main concern (390, 490).
- 2. Two courses that raise critical questions about religion in Western traditions and cultures (e.g., 103, 104, 107, 110, 203, 206, 207, 208, 209, 211, 212, 214, 218, 219, and topics courses).
- 3. Two courses that raise critical questions about religion in Asian traditions and cultures (e.g., 120, 130, 221, 223, 224, 226, 230, and topics courses).
- 4. Three additional courses. These may be concentrated in a particular tradition (e.g., Judaism, Christianity, Hinduism, Buddhism, East Asian Religions, Biblical Studies), or they may be on approaches to religion in culture (e.g., Religion and Gender, Religion and Literature, Myth and Ritual, Religion and Art, Social Scientific Study of Religion).

5. One course taken outside the department. For example, courses outside the department may include Philosophy of Religion, Religion and Science, and Anthropology of Religion.

**Option B.** Students who have a focused interest in a particular area of the study of religion, may be accepted, no later than the end of the sophomore year, for a major in religion structured along the following lines:

- The major will consist of 11 courses, with as many as four courses taken outside of the religion department. Religion 390 and 490 are required.
- Upon the declaration of the major and each semester these majors will discuss their course selections and the shape of their major program with the department and other majors.
- 3. In the senior year, the student will engage in an independent research project, designed to synthesize the student's work in religion up to that point. This project must be approved by the department and will be delivered both in written form and through an oral presentation.

Option B encourages students to develop interests which may cross normal disciplinary lines. Possible self-developed majors might include: Reformation Studies, The Classical World and Early Christianity, Women and Religion, Liberation Theologies, Myth Studies, Sacred Texts in Comparative Perspective, Medieval Studies, South Asian Studies, Middle Eastern Studies, etc.

### Minor

The minor in religion consists of six courses, including Religion 390 and Religion 490. No more than three of the six courses may be at the 100-level.

Additional Options: In addition to these options for the major in religion, the College offers a major in Judaic studies, East Asian studies, and the double major (recent examples: religion and philosophy, religion and art, religion and anthropology, religion and English). Students may also pursue studies in religion in a number of the College's off campus programs, including SITA.

# Russian

he Russian program offers a wide range of courses in language, literature, culture, and civilization, all designed to develop students' understanding of the distinct ways in which the Russian people think, feel, and live their lives. With language as the basic tool, students are encouraged to investigate the complexities of the Russian people, their world and society, and to gain a broader understanding of the unique historical, geographical, and cultural factors which have contributed to their development.

The three-semester sequence of basic language instruction is designed for students with limited or no prior knowledge of Russian. The goal of these courses is to allow students to develop their basic skills in order to communicate both orally and in writing. At the end of the three-semester sequence, students may apply to the Summer Immersion Program (Russian 215) at Mendeleev University in Moscow.

Intermediate and upper-level courses (200 and above) are open to all interested and qualified students, and can also lead to a major or minor in Russian. Flexibility in offerings allows students to pursue individual interests in advanced language study, literature, culture and civilization, while the required courses (Russian 221, 222, or 223, 224) provide the broad perspective that gives meaning to this specialization.

Advanced Russian language courses are designed to develop the student's ability to communicate effectively with Russian speakers, and to understand and follow the astonishing changes currently taking place in the former Soviet Union. A broad range of courses taught in Russian is offered on the advanced (360) level. These have included: Language of the Soviet Press, The Art of Translation, Stylistics and Phonetics, Advanced Russian Grammar, and Russian Drama and Theater.

Elementary and intermediate levels of Polish language are now being offered, and Polish literature courses are offered on an independent-study basis. Special topics courses on East European literature and film have been included in the Russian Department curriculum, as interest in and employment opportunities for students in the countries of Central and Eastern Europe have increased dramatically in the last few years.

Additional course offerings (260 level), which allow students to pursue topics not usually covered in required courses, have included: Russian Drama and Theater, Russian and Soviet Film, Nobel Prize Winners in Russian Literature, The Russian Short Story, The Russian Novel, Contemporary Soviet Literature, and East European Literature. Polish language is also offered as an independent-study course.

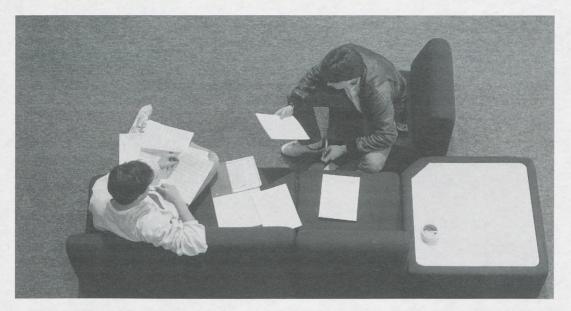
Russian literature is acknowledged as one of the great world literatures. Writers such as Dostoevsky, Tolstoy, Chekhov, Pasternak, and Bulgakov explored in their works some of the most profound problems as well as sublime aspirations of human existence. While Russian culture encompasses some of the highest achievements of the creative spirit, it is also marred by some of the most tragic and tormented aspects of that spirit. Perhaps this is the reason that works of Russian writers and artists so often transcend national boundaries and have truly universal appeal and relevance. Special topics courses focus on a particular aspect of literature or culture, and course offerings in other departments at Dickinson frequently emphasize Russian themes.

A strong cocurricular program at Dickinson supports the Russian offerings through the Russian Club, Russian language table, lectures, films, excursions, radio broadcasts, and other activities. The department also encourages advanced Russian students to study in Russia, either through Dickinson College's own exchange program with the Mendeleev University in Moscow, or through other Dickinson-affiliated programs in the former Soviet Union, including those of the American Collegiate Consortium and the American Council of Teachers of Russian.

A major or minor in Russian meshes well with other campus programs. Many students have complementary majors in a variety of other academic disciplines. Students have gone on to do graduate work in Russian, and in other fields such as medicine, computer science, geology, sociology, business, and law.

# Faculty

**Helen Segall,** Professor of Russian. Chair. Ph.D., Bryn Mawr College. Her teaching interests include Russian literature of the 19th and 20th centuries, and



Russian culture and civilization. Her scholarly interests focus on the Russian avant-garde, Russian Futurism, and Vladimir Mayakovsky in the 1920s, and on Russian and Soviet literature of the post-Stalin period. Her current research is focused on the works of two contemporary Russian writers, Vladimir Voinovich and Liudmila Petrushevskaya.

Barbara Niemczyk, Assistant Professor of Russian. Ph.D., Yale University. Her teaching interests include 19th and 20th century Russian literature, as well as East European literature and film and Russian and Polish languages. Her current scholarly interests include 20th century Russian and Polish literature, as well as contemporary Russian culture.

Frederick L. Van Doren, Assistant Professor of Russian. Ph.D., University of California, Berkeley. His teaching interests include Russian language, linguistics, and culture, with a focus on proficiency-based methodology. His scholarly interests involve pragmatics, discourse structure, conversational analysis, and colloquial speech. His current research explores the interactive structure of Russian conversation.

Valentina Kravtsova, Visiting Instructor from Mendeleev University, Moscow, Russia. M.A., Moscow State University in Russian language and literature. Her teaching and research interests include contemporary Russian literature, art and linguistics.

#### Courses

\*101, 104. **Elementary Russian** An intensive study of the fundamentals of Russian grammar, with an emphasis on the development of reading, writing, speaking, and understanding skills. Short stories and songs will supplement the text. *Please refer to Graduation Requirements (Languages)*.

116. **Intermediate Russian** Advanced grammar review incorporating controlled reading and composition. Emphasis on speaking competence continued through oral reports and conversational topics. *Prerequisite:* 104 or the equivalent.

200. Advanced Training in the Russian Language Emphasis on the development of reading, speaking, and writing skills. Reading of simple texts to acquaint the student with a variety of styles of the Russian language, concentration on some of the more difficult problems in the Russian grammar, translation, written composition, vocabulary building, and intonation. Prerequisite: 116 or equivalent, with a grade of at least C.

221. Russian Culture and Civilization to the 1860s A study of significant features of Russian literature, art, architecture, music, and theater from the times of the Scythians through the middle of the 19th century. Major developments during the Kievan, Muscovite,

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and Imperial periods will be highlighted. Films, slides, and records will supplement the reading and lectures. Conducted in English. Offered every other year.

222. Russian Culture and Civilization from the 1860s to the Present A study of the various phases in Russian intellectual thought, literature, arts, and music. The focus will be on the origins, rise, and fall of the Russian avant-garde during the first two decades of our century and on the rebirth of Russian culture during the post-Stalin period. Films, slides, and records will supplement readings and lectures. Conducted in English. Offered every other year.

223. Survey of Russian Literature in Translation I An introduction to Russian literature, presenting its development and the major literary movements from the earliest period to the middle of the 19th century. Readings will include works by Pushkin, Lermontov, Gogol, Goncharov, Turgenev, and Tolstoy. No knowledge of Russian necessary. Conducted in English. Offered every other year.

224. Survey of Russian Literature in Translation II An introduction to Russian literature, presenting its development and the major literary movements from the middle of the 19th century to the present. Readings will include works by Dostoevsky, Chekhov, Gorky, Blok, Mayakovsky, Babel, Zamiatin, Gladkov, Bulgakov, Pasternak, Solzhenitsyn, Voinovich, Trifonov, Shukshin, and Aitmatov. No knowledge of Russian necessary. Conducted in English. Offered every other year.

231, 232. Russian Conversation and Composition Practice in the techniques and patterns of everyday conversation, especially as these reflect different cultural orientation. Reading and discussion of short works by well-known Russian authors. *Prerequisite:* 200 or the equivalent, with a grade of at least C.

233, 234. Masterpieces of Russian Literature Reading and discussion of literary works by representative authors from the pre- and post-Revolutionary periods. *Prerequisite: 200 or the equivalent, with a grade of at least C.* 

241. The Works of Tolstoy and/or Dostoevsky A study of the major works of Tolstoy and/or Dostoevsky focusing on the artistic features of each novelist and

on his place in the history of Russian culture. Parallels and contrasts between the two writers will be examined on occasions when the works of both are taught. Conducted in English. Offered every other year.

242. Russian Literature of the 20th Century A study of Russian Literature covering the "Silver Age," the best of Soviet literature, and contemporary developments such as the development of literature of dissent and literature in emigration. Includes works by Chekhov, Bunin, Bulgakov, Nabokov, Pasternak, Solzhenitsyn. Conducted in English. Offered every other year.

260. Topics in Russian Studies In-depth analysis and discussion of selected areas and problems in Russian literature or culture. Recent topics have included: Russian Theatre and Drama, Nobel Laureates in Russian Literature, Russian Short Prose, Salvation Through Beauty: the World of Dostoevsky, Russian and Soviet Film, East European Literature, Modernism in Italy and Russia. Conducted in English. Offered every other year.

360. Topics in Russian Language and Literature A thorough investigation of a significant figure or major development in Russian literature, or an extensive examination of selected aspects of the Russian language, with emphasis on seminar reports and discussions. Conducted in Russian. Prerequisite: Russian major or instructor's permission.

#### The following course is offered in Moscow:

215. Moscow Summer Immersion Program A four-week course in contemporary Russian language and culture offered at the Mendeleev Institute in Moscow. Students will speak only Russian during this four-week period, and participate in intensive language classes, special lectures and field trips arranged with Russian university instructors. Prerequisite: 116 or equivalent and permission of the department.

# Major

At least ten courses, numbered 200 and above. Six courses must be in the Russian language. Two courses should cover Russian literature or Russian culture and civilization, one from the earlier and one from the later period: Russian 221 or 223, and Russian 222

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or 224. One additional course should be selected from any of the Russian Literature courses offered in the department; and one should be selected from the following: History 253, History 254, Economics 376, Philosophy 261\*, Political Science 253, Political Science 283, Religion 312\*, Sociology 252. \*When topic is approved by the director.

Majors will be encouraged to:

- 1. participate in the Interdisciplinary Russian Area Studies Senior Seminar: Russian 401,
- 2. participate in a semester or summer study program in the Republics of the former Soviet Union,
- 3. reside (for at least one year) in the Russian House.

#### Minor

Five courses numbered 200 or above. Four of these courses must be in the Russian Language.

**Note:** See also Russian Area Studies which offers a major and minor program

# Russian Area Studies

his interdisciplinary major is designed to provide the student with a broad, balanced understanding of Russia and the former Soviet Union. Through a series of interrelated courses the student will gain an in-depth view of the rich cultural, historical, and political heritage of this area.

The specific courses offered include Russian literature, language, history, politics, economics, sociology, religion, philosophy, music, and art. Students also have the opportunity to participate in the Dickinson College Russian Language Immersion Program in Moscow (Russian Practicum: Russian 215) in the summer or to study in the academic year through Dickinson's exchange program at the Mendeleev University. In addition, students may participate in study abroad programs through the American Collegiate Consortium or the American Council of Teachers of Russian. Dickinson College also provides students with the opportunity to attend numerous cultural events on campus and in nearby cities. These courses and activities help students understand how Russia has and will have an impact upon the life and politics of all Americans. They also provide a critical perspective for gaining a broader understanding of our own culture and society.

This broad, flexible major serves as excellent preparation for individuals intending subsequent specialization in law, international relations, business, politics, government service, and teaching. It also makes a sound companion program for those who are interested in a double major.

For detailed course descriptions students should check information given under the specific departments.

# Contributing Faculty

Russell Bova, Associate Professor of Political Science Truman C. Bullard, Professor of Music Philip T. Grier, Professor of Philosophy, Coordinator Barbara Niemczyk, Assistant Professor of Russian George N. Rhyne, Professor of History Helen R. Segall, Professor of Russian Theodore Pulcini, Assistant Professor of Religion Frederick L. Van Doren, Assistant Professor of Russian

Neil B. Weissman, Professor of History

#### Courses

401. **Interdisciplinary Seminar** Intended to integrate the several approaches of the Russian Area Studies Program and to provide a framework for independent study of a comparative nature. Offered cooperatively by the staff of the program. *Prerequisite: permission of the instructor.* 

### Major

- 1. Three courses from the following courses taught in the Russian language: Russian 231, 232, 233, 234, 360.
- Two courses in Russian literature or in Russian culture and civilization, one from the earlier and one from the later period: Russian 221 or 223, and Russian 222 or 224.
- Two courses in Russian history: History 253 and 254.
- Interdisciplinary Seminar: Russian Area Studies 401.
- Four courses of the following, to be selected from at least two different departments and to include at least two courses from Division II, the Social Sciences:
  - a. History 313\*, 404\*
  - b. Economics 376
  - c. Music 105\*
  - d. Philosophy 261\*
  - e. Political Science 207, 253, 283, 290\*, 390\*
  - f. Religion 312\*
  - g. Russian 221\*\*, 222\*\*, 223\*\*, 224\*\*, 234\*\*, 241, 242, 260, 360
  - h. Sociology 252

### Minor

#### Option A:

- 1. Russian 200 or the equivalent.
- One course in Russian literature or Russian culture and civilization.

- 2b. One course in Russian history. One from a or b should be in the earlier, one in the later period.
- Interdisciplinary seminar: Russian Area Studies 401.
- 4. Two other courses from the following:
  - a. Economics 376
  - b. History 253, 254, 313\*, 404\*
  - c. Music 105\*
  - d. Philosophy 261\*
  - e. Political Science 207, 253, 283, 290\*, 390\*
  - f. Religion 312\*
  - g. Russian 231, 232, 233, 234
  - h. Russian 221\*\*, 222\*\*, 223\*\*, 224\*\*, 231, 232, 233, 234\*\*, 241, 242, 260, 360
  - i. Sociology 252

#### Option B:

- 1. a. One course in Russian literature
  - b. One course in Russian culture and civilization
  - c. One course in Russian history. One from a or b or c should be in the earlier period.
- Interdisciplinary seminar: Russian Area Studies 401.
- 3. Two other courses from the following:
  - a. Economics 376
  - b. History 253, 254, 313\*, 404\*
  - c. Music 105\*
  - d. Philosophy 261\*
  - e. Political Science 207, 253, 283, 290\*, 390\*
  - f. Religion 312\*
  - g. Russian 221\*\*, 223\*\*, 224\*\*, 241, 242, 260, 360
  - h. Sociology 252
- \* When the topic is approved by the director.
- \*\* If different from "2".

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# Science, Technology, and Culture

ourses in this program are intended to orient liberal education to the scientific and technological basis of modern civilization. Broadly, these courses are divided into those with a historical focus and those dealing with contemporary issues and concerns.

The history of science courses examine the emergence of science within the larger cultural environment, exploring the relationship between science and other forms of human experience, such as social and political movements, technology, philosophy, religion, fine art, and mysticism. In examining the historical development of science from earliest to modern times, these courses also focus on the nature of science itself: what are hypotheses, theories, laws, and research traditions?; how are they related to one another?; does science grow?; how is scientific knowledge related to reality?; if science changes over time, what exactly changes—methods and/or content?

While science has an internal momentum that drives the scientific enterprise, science also has a social, cultural, economic, and institutional context. Courses with a contemporary focus deal with issues that are central to modern society, and explore the ways by which science and technology are interrelated within the larger cultural and social world. These are issue-oriented courses in which specific scientific and technological problems are carefully examined.

No major or minor is offered in this program. All courses in this program, in addition to those likewise designated in other science departments, satisfy the third (non-laboratory) course of the science requirement (in Natural Science).

# Faculty

**Neil S. Wolf,** Professor of Physics, Ph.D., Stevens Institute of Technology. Coordinator. The plasma physics of fusion reactors and the ionized gases in space are his main areas of research. He has written on Galileo's experiments, and now is combining an avo-

cation as an artist with the history of light and color. His other Science course involves the social and scientific background of energy production and use, and its environmental consequences.

T. Scott Smith, Professor of Physics, and Astronomy, Director Bonisteel Planetarium. Ph.D., University of Maryland. Although his major areas of research and teaching have been theoretical astronomy and astrophysics, he also has considerable interest in the history of science and science/society interactions past (megaliths/archeoastronomy), present (environmental crisis), and future (science fiction) both in the western and non-western traditions. Most recently, he supervised a senior thesis on the cometary origin of Earth's water. (On leave Spring 1997)

#### Courses

\*101, 102. Physical Science A wide range of physical phenomena will be covered in this introductory science course. Topics will be chosen from real world phenomena such as rainbows, thunder and lightening, acid rain, radioactivity, fire, the sun, the moon, and the stars. Scientific theories will be introduced as needed, but the main emphasis of the course will be on the analytic process of science, with students developing hands-on projects throughout each semester. Either two three-hour or three two-hour sessions per week. Fulfills Div III two-semester, lab-science sequence requirement.

211. Science from Antiquity to the 17th Century The first half deals with Greek, Arabic, and Medieval Latin theories of matter, motion, and growth, including the transmission of science and science education. The latter half deals with the scientific revolution from Copernicus to Newton with attention focused on the radical restructuring of basic assumptions about nature and method.

212. Science from Newton to Einstein Growth of quantitative methods in physical science and experimental methods in biology and natural history in the 18th, 19th, and early 20th centuries. Particular emphasis on Enlightenment and Romantic science, Darwinian evolution and genetic theory, the new physics of relativity and quantum mechanics, and modern cosmology. Gradual separation of science from philosophy and theology.

258. Topics in the History of Science The nature of science as a major aspect of Western civilization. Examines science and the scientific enterprise by devoting particular attention to the following: the structuring of basic assumptions about nature and method; social, cultural, and religious dimensions of scientific change and discovery; noted developments in the physical and life sciences. Topics vary and will be announced each term. Recent topics have included: The Scientific Revolution, History of the Physical Sciences, Development of Cosmology, Darwin and Social Darwinism, Science and Religion, History of Mathematics, American Science, History of Medicine, and Ethnoastronomy. Prerequisite as needed.

260. Energy and The Environment A lecture course on the role of conventional energy sources, nuclear energy, and nuclear weapons in modern society. Topics will include the relationship of scientific principles to an understanding of the greenhouse effect, the thinning of the ozone layer, the disposal of nuclear waste, and the history, technology, and effects of nuclear weapons.

432. **Senior Colloquium** The senior colloquium in science will explore new developments in science as well as philosophical, social, and ethical dimensions of the scientific enterprise. This will be a team-taught course in which senior science majors will work with faculty members to select readings and lead discussions. *One-half course credit. Prerequisite: senior standing with a major in one of the natural or mathematical sciences.* 

The following contemporary science courses are cross-listed in their disciplinary departments and also satisfy the third science requirement:

Biology 105. Biological Aspects of Contemporary Problems.

Biology 108. Modern Natural History.

Chemistry 103. General Chemistry Geology 101. The History of Life.

Geology 220. Environmental Geology.

Physics 102. Meteorology.

Physics 105. Life in the Universe.

# Sociology

Sociology studies how human beings live in groups and societies they establish and how they judge the meanings of their social life. Starting with the individual, sociologists observe how the commitments of social beings, expressed in everyday interactions, bind them together in social relationships and result in the production of value, belief, and behavioral systems. Starting with societies, cultural traditions, and whole civilizations, sociologists inquire into the alternative cultural designs, forms of social organization, and modes of consciousness by which people in cooperation and in conflict order their shared lives and individual identities.

Sociology seeks to foster reflective self-understanding in its students through heightened awareness of their and others' underlying commitments. It hopes to enhance their ability to perform well in the various relations, communities, institutions, and practices of their own society and the world.

Society's concerns do not resolve themselves in disciplinary isolation. Majors will find it helpful to become closely acquainted with at least one other discipline in the humanities or the social sciences, such as political science, history, religion, philosophy, psychology, economics, or one of the regional programs: American, Latin American and Russian, and certificate programs: environmental and women's studies. Interdisciplinary studies and integrative senior theses are encouraged and assisted.

An emphasis on sociology's educative rather than training value has enabled majors to serve in a broad range of endeavors, not only university and secondary teaching, law, social work, and counseling, but also research, journalism, urban politics, and business management.

# Faculty

Vytautas Kavolis, Charles A. Dana Professor of Comparative Civilizations and Professor of Sociology. Chair. Ph.D., Harvard. His past publications include the sociology of art, comparative social problems, and cultural psychologies. His current research involves



empirical mapping of moral cultures, comparative histories of selfhood and sociability, cultural modernization, and civilization analysis.

Marvin Israel, Associate Professor of Sociology. B.A., City College of New York. He is interested in the moral and philosophical analysis of fundamental theoretical perspectives in sociology. He specializes in social theory, the relations between men and women, deviant behavior, studies of the spiritual dimensions of bodily practices such as fitness activities and eating, and Italian culture and ethnicity. (On leave Spring 1997)

Susan D. Rose, Associate Professor of Sociology. Ph.D., Cornell University. She is interested in life course studies and systems of socialization (family, education, and religion), with a particular emphasis on comparative family systems and the interaction of gender, class, and race. Other areas of interest include: violence, crimes of capital, stratification, and social policy. Publications have focused on the sociology of education, religious fundamentalism in the U.S. and the Third World, domestic violence, and the negotiation of gender.

#### Courses

110. Social Analysis Selected topics in the empirical study of the ways in which people's character and life

choices are affected by variations in the organization of their society and of the activities by which social arrangements varying in their adequacy to human needs are perpetuated or changed.

212. Relations Between Men and Women Love and its aberrations, men's and women's perceptions and treatments of one another, the nature of masculinity and femininity, homosexuality, and pornography analyzed from a sociological perspective, but drawing on a wide selection of sources in sociology, psychology, philosophy, literature, and film.

221. Self, Culture, and Society The diverse ways in which human beings comprehend what kinds of persons they are. Close reading of autobiographies and analysis of sociopsychological climates in which particular experiences of selfhood arise and of civilizational categories by which they are judged to be valid or not.

222. The Family Phenomenon In both the ideal and real worlds, the family is credited with producing social leaders and blamed for creating social misfits. Social scientists, policy makers, and writers have focused on the family as a central and powerful social institution. This course explores the nature and role of families, and how families vary across cultures and over time. The course will address such topics as socialization, gender, work-family issues, and domestic violence.

225. **Urban Life** The nature of the city and how it fosters cosmopolitanism and urbanity. Urban planning, good and bad. City lifestyles contrasted with those of the suburb and country. Includes optional field trip to New York City.

226. Race, Class, and Gender The course will explore how race, class, and gender, as interactive categories of experience, influence individual lives, social structures, and cultural meanings.

230. **Selected Topics in Sociology** Courses which examine special topics in sociology and will include on a regular basis, Italian-American Ethnicity, Political Economy of the Family, and Eating Disorders and Health.

240. Qualitative Methods This course introduces students to the theory and methods of social science research, beginning with an examination of the philosophies underlying various research methodologies. The course then focuses on ethnographic field methods, introducing students to the techniques of participant observation, structured and informal interviewing, oral histories, sociometrics, and content analysis. Students will design their own field projects. Prerequisite: At least one course in sociology, anthropology, or American studies.

241. Quantitative Data Anlysis This course focuses on quantitative data analysis. Students will learn how to design, code, and analyze interviews and surveys. Selected databases and statistical programs will be used to analyze current social issues and compare samples. *Prerequisite: Sociology/Anthropology 240*.

250. Comparative Social Pathology A review of both American and cross-cultural studies of the social origins of destructive and self-destructive behavior. Social institutions, social change, and cultural values as sources of damage to life, health, and sense of meaningful existence. Pathological myths. Responses to pathology.

252. **Russian Society** This course analyzes the contemporary Russian social system and will identify areas of stability and strain within that system, speculating on the dynamics of change. Comparison with American institutions and values will be made.

300. **Deviant Behavior and Social Control** Critical examination, through original works by Merton, Parsons, Cohen, Cloward, Matza, McHugh, Blum, and others, of the two major contrasting approaches in American sociology to the theoretical explanation of delinquency and crime. Crime and evil will also be examined by using Plato to reflect on the Holocaust.

330. Sociological Theory This course examines alternative ways of understanding the human being, society, and the culture as they have been presented in classical and contemporary sociological theory. It focuses on the theoretical logic of accounting for simple and complex forms of social life, interactions between social processes and individual and group identities, major and minor changes in society and culture, and the linkages between the intimate and the large-scale human experience.

340. Social Change and Social Movements Key issues in the study of sociocultural change. Dynamics of movements which have sought to promote or resist changes in society, culture, or human character. Broader processes of change that keep shaping the world of our experience. Relations of particular social movements to long-term cultural changes.

345. Social Policy: Family and Work This seminar examines the relationships between the "private" sphere of family and the "public" spheres of work, schooling, and policy-making. It focuses on contemporary American society, with cross-cultural and historical comparisons made vis-a-vis family and medical leave; child care; family law (domestic violence, divorce, child custody); working conditions, regulations, and opportunities. *Prerequisite: 222, History 394, Sociology 230 (depending on topic), or permission of the instructor.* 

390. Sociology Seminar A specialized seminar, intended to relate a broad area of theoretical concern to the problems and procedures of current research. Regularly offered topics: American Society; Art and Society; Fatness, Fitness, Anorexia and Exercise; Sociology of Religion; Family, Work, and Social Policy. Prerequisite: permission of the instructor.

395. Senior Thesis Independent study, in consultation with a specially constituted faculty committee, of a problem area chosen by the student. The student should, in addition to pursuing his/her own interests, also seek to demonstrate how various perspectives within sociology and, where relevant, other disciplines bear on the topic chosen.

# Major

Nine courses are required, including 110, 240, 241, 330 or equivalent, either 390 or 395, and 4 other courses, 2 of which may be taken outside the major with approval of the department. A senior thesis is strongly recommended.

#### Minor

Six courses, including 110, 240 or 241, and 330.

# Spanish and Portuguese

he Department of Spanish and Portuguese offers courses designed to introduce the student to the language, literature, and civilization of the Spanish-and-Portuguese speaking world. For those who need instruction on the elementary and intermediate levels, the courses are offered on an intensive basis with five class meetings a week. These courses, as well as the ones in conversation and composition, are designed to help the student in any other major who needs Spanish or Portuguese to complement his or her studies.

The Spanish and Portuguese department has developed a summer immersion program in Málaga, Spain, which will give students who have completed the introductory sequence of courses in Spanish an opportunity to augment their language skills by spending five weeks immersed in the Spanish language and culture. Students accepted into this program will live in Spanish residences, be assigned special tutors who are graduate students at the University of Málaga, and have daily classes with faculty from Málaga and Dickinson. Students who have completed the immersion experience are expected to have increased ability to use Spanish in their reading and research as well as to have increased skill in oral communication.

For those students planning a major in Spanish, the department encourages them to enroll in the fullyear or fall-semester program at the Dickinson College Study Center at the University of Málaga, Málaga, Spain. Through advanced courses in language and literature, both on the Carlisle campus and abroad, Spanish majors acquire a better understanding of Hispanic culture. In the time spent abroad, they are encouraged to integrate this foreign experience with the departmental program. The flexibility of this program is such that, depending upon the student's personal goals and postgraduation plans, many tracks and combinations of study are possible. Often majors also will have a second major in such areas as anthropology, sociology, international studies, psychology, economics, or another language. A certificate in Latin American studies is also a highly attractive way to combine various disciplines and pursuits of study. In this case, study in Latin America with programs approved by the department is encouraged.

Knowledge of the Spanish language and culture can be a major asset in professional schools and many positions in business and government. Most recent graduates in Spanish are currently employed in teaching, government agencies, social work, and private business. A number of them are now doing graduate work in Spanish, and some of them have held short-term teaching positions abroad.

Students who have completed their study of Portuguese through the conversation and composition level may continue their study of the language, literature, and civilization of the Portuguese-speaking world through the Portuguese topics course, as well as through tutorials and independent studies. Such students may also study in Brazil, as several have, or in Portugal on programs approved by the department. Students interested in Brazil in particular may also wish to use their Portuguese and their interest in Brazil toward the Latin American Studies certificate. A number of Portuguese students have gone on after graduation to put their knowledge of Portuguese to use in positions in international business, particularly international banking.

### Faculty

Arturo A. Fox, William W. Edel Professor of Humanities and Professor of Spanish. Ph.D., University of Minnesota. His teaching interests include Latin American culture and civilization as well as the novel and short story in Spain and Latin America. As a literary critic, his published articles often explore the structural and neo-Freudian (Lacanian) approaches to the text. He is the author of two Spanish textbooks.

Grace L. Jarvis, Senior Lecturer in Spanish. M.A., University of Missouri. Her responsibilities include the teaching and coordination of introductory language courses, and the supervision of extra and cocurricular activities sponsored by the department. Her research interests include multi-lingual and multi-cultural education, and international education. (Director of Málaga Program 1995-97)

Keith H. Brower, Associate Professor of Spanish and Portuguese. Chair. Ph.D., The Pennsylvania State University. His main teaching and research interests lie in 20th-century Spanish American and Brazilian literatures, particularly contemporary fiction. He has published critical pieces on works by Jorge Luis Borges, Gabriel García Márquez, Machado de Assis, Clarice Lispector, and others.

Barbara Brunner, Associate Professor of Spanish. Ph.D., University of Pennsylvania. Her research focuses on the art of poetry and the literature of Spain's Golden Age. Her current interests focus on 17th century morality sonnets and the poetic techniques of Lope de Vega.

Alberto Rodríguez, Associate Professor of Spanish. Ph.D., Brown University. His scholarship has focused on the Spanish novel of the Golden Age, particularly Cervantes. The subject of his research is the study of Cervantes' narrative discourse in *Don Quijote*.

Mark C. Aldrich, Assistant Professor of Spanish. Ph.D., University of Massachusetts. He is particularly interested in 20th century Spanish poetry, although his publications include both Peninsular and Spanish American subjects. He has also published literary translations. As a literary critic, he is especially interested in intertextuality and theories of metaphor.

Linda Zee, Assistant Professor of Spanish and Portuguese. Ph.D., Indiana University. Her academic interests are contemporary Spanish American fiction, Literature of the Fantastic and Indigenous Literatures. Her current research includes Spanish American women writers and non-Western feminist theories.

Isabel Valiela, Assistant Professor of Spanish. Ph.D., Duke University. Her academic interests include Spanish American literature, Latin American women writers, and Latina writers in the U.S. Currently, she is involved in research on women in Puerto Rico and Cuba.

**Cathleen E. Anderson**, Instructor in Spanish and Portuguese. M.A., The Pennsylvania State University.

**Beatriz C. Quintero,** Part-time Instructor in Spanish. B.A., University of Puerto Rico. She teaches introductory-level courses in Spanish. Her academic interests are in the theatre of the Spanish Golden Age and contemporary Latin American prose fiction.

Judith F. Marcella, Part-time Instructor in Spanish. M.A., Syracuse University. She teaches introductory courses in Spanish. Her interests lie in colonial Latin American culture and modern Latin American literature. She has recently translated the memoirs of a Salvadoran guerrilla leader.

# Contributing Faculty

J. Mark Ruhl, Professor of Political Science

# Spanish

\*101, 104. **Elementary Spanish** An intensive study of the fundamentals of Spanish grammar, with special attention given to pronunciation and oral expression. Composition and literary and cultural readings. *Please refer to Graduation Requirements (Languages)*.

116. Intermediate Spanish Review of Spanish syntax. Introduction to conversation and composition through selected cultural and literary readings. *Prerequisite:* 104 or the equivalent.

231, 232. **Spanish Conversation and Composition** Careful attention to grammar and style as seen in short stories and articles and in compositions written on a periodical basis by the students. Advanced practice in the oral aspects of the language based on everyday situations. *Prerequisite: 116 or the equivalent.* 

241. Aspects of Spanish Civilization In-depth study of several aspects of Spanish civilization. Attitudes, values, and mores as manifested in their history and their artistic achievements. Oral and written reports concerning some cultural aspects. *Prerequisite: 231 or 232 or the equivalent.* 

242. Aspects of Latin American Culture A selective study of important Latin American cultural trends and values from the pre-Columbian period to the present. Emphasis on the Latin American versions of key Western-period terms such as Renaissance, baroque, the Enlightenment, romanticism, and avant-garde approaches and on locally generated movements such as Modernismo, Arielismo, Indigenismo, etc. Some literary selections and artistic works are selectively introduced in order to illustrate the cultural trends under study. *Prerequisite: 231 or 232 or the equivalent.* 

- 243. Introduction to Literary Criticism in Spanish An introduction to text analysis, methods, and Spanish terminology of literary criticism. Peninsular and Spanish American texts from different periods are used as primary references. Students are encouraged to apply the concepts learned to concrete texts. *Prerequisite:* 241 or 242 or the equivalent, or 231/232.
- 244. Survey of Spanish Literature A chronological study of Peninsular literature from the 12th to the 20th century. Trends and movements will be studied through the reading of representative authors. *Prerequisite: 243 or the equivalent.*
- 245. Masterpieces of Spanish-American Literature Reading and discussion of representative works of Spanish-American literature from the colonial period to the present, with an emphasis on the 20th century. *Prerequisite: 243 or the equivalent.*
- 351. The Spanish Novel A study of representative works by the most important novelists of Spain beginning with Cervantes and including such 19th and 20th century masters of the genre as Galdós, Baroja, and Cela. Prerequisite: 243 or 244 or the equivalent. Offered every other year.
- 352. Medieval and Renaissance Spanish Literature A study of the period with emphasis on major works such as *El Poema del Cid, El Conde Lucanor, La Celestina, Lazarillo,* Garcilaso and the Mystics. *Prerequisite:* either 243 or 244 or the equivalent. Offered every other year.
- 361. The Spanish Theatre A study of representative plays from the Golden Age to the present, with a particular emphasis on dramatic trends and influences. Prerequisite: 243 or 244 or the equivalent. Offered every other year.
- 362. Contemporary Spanish Literature A study of representative contemporary works. Special emphasis on the different trends and ideas as reflected in works by pre-Civil War authors. *Prerequisite: 243 or 244 or the equivalent.*
- 372. 20th Century Spanish-American Fiction Selective coverage of outstanding novels and short stories by 20th century Spanish-American writers. Analysis of some works of the 1920s and 1930s; emphasis on post-1940 fiction. Includes works by Borges, Rulfo,

- Cortázar, Garcia Márquez, among others. Prerequisite: 243 or the equivalent. Offered every other year.
- 381. Topics in Hispanic and Luso-Brazilian Studies Study of significant cultural, literary, and historical topics concerning the Spanish and/or Portuguese speaking world. Peninsular and Latin American topics alternate on a yearly basis. Some topics offered in past years were: Latin America as a Colonial Province, Sephardic Culture and Civilization, History and Civilization of Mexico, and History and Civilization of Brazil. Specific topics to be announced before registration. Prerequisite: permission of the instructor. One-half or full course. (Also listed as Portuguese 381.)
- 382. Seminar in Hispanic Literature A thorough investigation of major figures or important literary trends in Hispanic literature which were not covered by the majors in previous courses. The majors will work on a semi-independent basis with a particular instructor and will present reports to the seminar and participate in subsequent discussions. Emphasis on methods of literary research. *Prerequisite: 243, a major or minor in Spanish.*

### The following courses are offered in Málaga:

- 200. Málaga Summer Immersion A five-week course in contemporary Spanish language and culture offered at the University of Málaga, Málaga, Spain. Students will reside with Spanish families, speak only Spanish during this five-week period, and participate in intensive language and culture classes, special lectures, and field trips arranged by Dickinson in cooperation with the Cursos para Extranjeros of the University of Málaga. Prerequisite: 116 or equivalent and permission of the department.
- 251. Language Tutorial Oral practice and written compositions on a variety of topics including the students' first-hand encounters with key aspects of Spanish society. This course functions as an intensive language laboratory on location in the city. Offered only at the Dickinson Study Center in Málaga.
- 261. Andalusian Society and Culture Distinctive features of the Andalusian cultural tradition and value system against the backdrop of Iberian—especially Castilian—history and culture. Study of Andaluciá's Roman, Judeo-Christian, and Arabic roots with emphasis on on-site analysis of local folklore. Offered

only at the Dickinson Study Center in Málaga. Offered in the fall semester.

- 271. **Spanish and Hispanoarab Art** An overview of Spanish art followed by an emphasis on the Hispanoarab art of Andaluciá. *Offered only at the Dickinson Study Center in Málaga. Offered in the fall semester.*
- 371. Literary Analysis of Hispanic Texts An indepth study of texts analyzing poetry, prose, and theater of a specific period or genre; for example—generation of 1927, using critical-methodology. Offered only at the Dickinson Study Center in Málaga.
- 381. **Topics in Hispanic Studies** Study of significant cultural, literary, and historical topics concerning the Spanish-speaking world. Peninsular and Latin American topics may be offered. Specific topics to be announced. *Offered only at the Dickinson Study Center in Málaga*.

### Major

Nine courses numbered 200 and above (including 241 or 261, 242, 243, 244, 245 and 382), at least eight of which must have been conducted in the Spanish language. No more than two language skill courses may be applied to the major. (i.e. 200 and 231, language tutorial in Málaga.)

For Majors Intending Off-Campus Study and Transfer Students: Regardless of the amount of transfer credit or off-campus study credit earned, a student majoring in Spanish must complete a minimum of five courses on campus. Of these five, at least two regular courses must be completed during the senior year. The student is responsible for scheduling coursework or independent study which will cover those masterpieces of Spanish and Spanish-American literature which have been specified by the department. A complete list of these masterpieces and the courses which cover them may be obtained from the department.

### Minor:

Five courses numbered 200 or above, including 231 or 232, either of which may be waived by special permission of the department.

# Portuguese

- \*101, 104. Elementary Portuguese An intensive study of the fundamentals of Portuguese grammar, with special attention given to pronunciation and oral expression. Composition and literary and cultural readings. *Please refer to Graduation Requirements (Languages)*.
- 116. **Intermediate Portuguese** Review of Portuguese syntax. Introduction to conversation and composition through selected cultural and literary readings. *Prerequisite:* 104 or the equivalent.
- 231. Portuguese Conversation and Composition Advanced practice in oral and written Portuguese. Inclass work focuses primarily on oral practice through presentations and class-wide discussions of these presentations, of current events, readings and films, as well as small group practice emphasizing everyday situations. Out-of-class work focuses on writing and revision of compositions with emphasis on both grammar and style. *Prerequisite: 116 or the equivalent.*
- 381. Topics in Hispanic and Luso-Brazilian Studies Study of significant cultural, literary, and historical topics concerning the Spanish and/or Portuguese speaking world. Peninsular and Latin American topics alternate on a yearly basis. Some topics offered in past years were: Latin America as a Colonial Province, Sephardic Culture and Civilization, History and Civilization of Mexico, and History and Civilization of Brazil. Specific topics to be announced before registration. Prerequisite: permission of the instructor. One-half or full course. (Also listed as Spanish 381.)

In addition to the above offerings, Portuguese is offered on a tutorial basis.

# Women's Studies

Students participating in the Women's Studies Certificate Program will develop an understanding of the range of women's history and experience, including differences based on class, race, culture or ethnic origin, religion, age, and sexual orientation. This field draws from multiple perspectives-political, cultural, economic, historical, social, and biological-to study human experience. As the following outline of courses required for the certificate indicates, the program is both interdisciplinary and methodologically diverse.

All women's studies certificate students will take seven courses and one internship. The following are the required four core courses: Women's Studies 200. Introduction to Women's Studies; Women's Studies 210. Philosophy of Feminism (this course is cross-listed with Philosophy 210) OR Women's Studies 220. History of American Feminism; Women's Studies 217. Cross-Cultural Perspectives on Gender (this course is cross-listed as Anthropology 217); OR Women's Studies 218. Bio-Social Aspects of Female Sexuality (this course is cross-listed as Anthropology 218); and Women's Studies 400. Senior Seminar in Women's Studies.

In addition, all certificate students will participate in an internship related to the student's disciplinary interest. The academic adviser for the internship will be one of the contributing Women's Studies faculty; the academic component will apply some aspect of the history and theory of women's studies to the work experience. Finally, students will elect three additional courses designated as appropriate for the certificate. These courses should be drawn from at least two departments. These three courses will build toward work to be done in the internship and the seminar.

# Faculty

Amy E. Farrell, Assistant Professor of American Studies and Coordinator of Women's Studies. Ph.D., University of Minnesota. Her research includes 20th century U.S. culture, mass media, feminist theory, and U.S. women's history.

Stephanie G. Larson, Associate Professor of Political Science and Coordinator of Women's Studies. Ph.D., Florida State University. Her research includes mass media, public opinion, and representation of women in popular culture.

# Contributing Faculty

Chuck Barone, Associate Professor of Economics (On leave Fall 1996)

William Bellinger, Associate Professor of Economics Mara Donaldson, Associate Professor of Religion (On leave Fall 1996)

Bonnie Dowdy, Assistant Professor of Psychology Susan M. Feldman, Associate Professor of Philosophy Ann M. Hill, Associate Professor of Anthropology (On leave Spring 1997)

Ellen Ingmanson, Assistant Professor of Anthropology

Carol Ann Johnston, Assistant Professor of English Stephanie Larson, Associate Professor of Political Science

Lisa Lieberman, Assistant Professor of History (Bologna 1996-97)

K. Wendy Moffat, Associate Professor of English Mary E. Moser, Associate Professor of Classical Studies

Sharon O'Brien, Professor of English and American Studies (On leave 1996-97)

GailAnn Rickert, Associate Professor of Classical Studies

Gisela Roethke, Associate Professor of German Kim Lacy Rogers, Associate Professor of History Susan D. Rose, Associate Professor of Sociology Sharon Stockton, Assistant Professor of English

#### Courses

200. Introduction to Women's Studies This is an interdisciplinary course, integrating literature, economics, sociology, psychology, and history. The focus will be primarily on the representation and experience of women in American society in the 19th and 20th centuries, with attention to issues like gender roles, the family, work, sexuality, race, class, and feminism. This course will not fulfill a distribution requirement. Prerequisite: one semester of college study, with preference given to sophomores.

- 210. Philosophy of Feminism See course description with Philosophy 210 listing.
- 217. Cross-Cultural Perspectives on Gender Offered every other year. See course description with Anthropology 217 listing.
- 218. Bio-Social Aspects of Female Sexuality Offered every other year. See course description with Anthropology 218 listing.
- 220. History of American Feminism This course will emphasize such topics as the 19th century women's movement, the suffrage movement, radical and liberal feminism, and African-American feminism. We will pay particular attention to the diversity of women's experiences in the United States and to women's multiple and often conflicting responses to patriarchy and other forms of oppression. *Prerequisite: One course in Women's studies or history or permission of the instructor.*
- 300. **Topics in Women's Studies** This course will focus on specialized topics within Women's Studies, such as women and creativity; women and film; health issues for women; global feminism; and feminist theologies. *Prerequisite: Women's Studies 200 or permission of instructor.*
- 400. Senior Seminar in Women's Studies All topics will draw upon the knowledge of the history and theories of feminism and will be interdisciplinary in nature. Normally limited to certificate students or by permission of the instructor.

#### Electives

Students should consult the preregistration booklet each semester for appropriate electives. Examples of appropriate electives are Economics 495. Economics of Gender; English 101. Women Writers; East Asian Studies 203. Chinese Women Writers; German 350. Christa Wolf; History 394. The Family in America; Religion 250. Topics in Religion and Gender. Students should consult the coordinator of women's studies as soon as they know they want to pursue a certificate to design a coherent program.

# Special Approaches to Study

- Tutorial Study
- Independent Study and Research
- · Candidacy for Departmental Honors
- Integrated Independent Study/Research
- Foreign Language Integration Option
- · Internships
- Special Majors

Independent research and study, internships, special majors, and tutorial study encourage Dickinson students to pursue individual academic interests and allow students with the requisite ability and motivation to undertake more self-directed programs of study under faculty guidance.

# Tutorial Study, Independent Study, and Research

The following options describe programs of tutorial study, independent study, and research possible in any academic area in which faculty have training and in which the student has the approval of the appropriate department or coordinating faculty committee. These general guidelines may vary among individual programs.

**Tutorial Study** Tutorial study is occasionally approved for students who, by agreement with the instructor, need to take a course listed in the catalogue on a one-to-one or limited enrollment basis. Such a need might be justified in the case of a course which is offered only on an alternate year basis or at some other frequency which would not allow for the completion of the student's program. Approved tutorial studies are registered for during the normal add/drop period in the Office of the Registrar.

Independent Study and Research for Freshmen Freshmen who, on the basis of advanced placement, have qualified for credit in an introductory course (except foreign language courses below 230 and such other courses as may be designated by the departments) and desire to work more extensively at the survey or principles level of a discipline may enroll for a tutorially-directed course or half-course in independent study within the same body of knowledge.

A freshman who wishes to take a second independent study, or a course of independent study or research on terms available to sophomores, juniors, and seniors, must petition the Committee on Academic Standards, with supporting statements from the academic adviser and proposed supervisory instructor.

Independent Study for Sophomores, Juniors, and Seniors Independent studies allow a student to pursue an academic interest outside the listed course offerings. The study may include experimental work and reading and may culminate in several short papers, a single paper, or any other project acceptable to the supervising faculty member and the student. The work may be supervised by one instructor or several instructors from one department or several departments. Such interdepartmental studies must be approved beforehand by the Committee on Academic Standards. Sophomores may undertake one study or one independent research course and may, with the support of the student's academic adviser, petition the Committee on Academic Standards for permission to take two independent studies or independent research courses in one semester. Juniors and seniors may undertake two such courses without special approval and may petition the Committee on Academic Standards for additional independent study or research courses. In addition, the student must have a cumulative average of 2.00 or the permission of the Committee on Academic Standards.

Independent Research for Sophomores, Juniors and Seniors Independent research, like independent study, allows a student to pursue an academic interest beyond the listed course offerings, but this pursuit must culminate in an original contribution to a discipline, whether in the form of fully-supported conclusions or in the form of a creative effort. Although supervised by faculty from one department or several departments, the work is to be largely self-initiated and self-directed—an introduction into research and practice in presenting the results of an investigation. Conclusions must be presented for evaluation no later than one (1) month prior to the student's graduation.

The program may be elected (maximum credit: four full courses per semester) for the junior year, the senior year, or both. Sophomores may undertake one independent research course per semester unless permission is granted by the Committee on Academic Standards to take two such course credits on the basis of a petition supported by the student's academic adviser. In order to register for the program, special permission is required from the Committee on Academic Standards for students with less than a 3.00 average in the department or departments supervising the independent research. Programs of independent research involving more than two such courses per semester must be approved by the Committee on Academic Standards. Interdepartmental research must be supervised jointly by the respective faculty members and must also be approved by the Committee on Academic Standards.

Candidacy for Departmental Honors Students participating in the independent research program described above shall be eligible to be voted departmental honors on the completion of the program. In assessing each candidate, the departments may conduct comprehensive examinations or may invite outside examiners. If, in the judgment of the department, a candidate meets the standards for graduation with honors, the project shall be so designated.

**Departmental Honors** Departmental honors are conferred at graduation upon students who meet the departmental standards for graduation with honors. Honors are achieved through independent research and study in the department.

Integrated Independent Study and/or Independent Research for Juniors and Seniors This provision allows a student, with the guidance of his or her major department and any supporting departments, to plan an entire program either for the last two years of study or for the senior year. The program, which must be approved by the Committee on Academic Standards, may combine independent study, independent research, and course participation. Work under the program normally proceeds without grade, but, upon the student's completing the plan, the supervising department will prepare a precise description of the work accomplished and an evaluation of its quality which will become part of the student's permanent record.

# Foreign Language Integration Option

A number of courses are designated each semester as carrying the foreign language integration option. These are courses in which students who wish to try their language skills in courses outside the language departments can choose to do some work in the designated foreign language. The amount and type of language work involved (readings from articles, newspapers or books and/or some paper writing) is determined by the professor in conjunction with the student. Foreign language work is tailored to meet the needs and language level of the individual student. Typically, work in a foreign language is substituted for English language materials, so as not to constitute an added responsibility. Successful completion of the foreign language integration option is noted on a student's transcript, thus certifying the student has had extra training in the language. This option is entirely voluntary. Students who register for courses with this option are not required to do work in a foreign language and may take the courses on the regular basis. Evaluation of the foreign language integration work does not affect the student's grade in the course.

# Internships

An internship is a special field program integrated with an academic component by which a student may test the practical applications of liberal learning in any of a variety of professional or occupational settings, on or off campus. Through an internship, a student has the opportunity to explore the interrelationship between an academic subject and some area where it has practical application or relevance. This experience also provides a way to explore possible career choices while still in college.

Normally open only to juniors and seniors, internships are initiated by the student and must be approved in advance by the internship coordinators. A faculty internship adviser helps the student develop the broader theoretical framework or perspective in which the field work is to be analyzed, assumes overall responsibility for the internship in progress, and reports the grade of Credit or No Credit at its conclusion. Each internship is assigned from one-half to two course credits, based upon the nature and complexity of the integrated internship project. A student may receive a maximum of two internship course credits in a given semester or summer, and normally no more than four in a given academic year. No more than two internship credits may be counted toward a minor. January internships receive a maximum of one-half course credit. Permission for a given student to do more than two internships involves a special approval process beyond the approval of the third internship itself, so students considering this possibility should begin their planning and consult an internship coordinator very early in the preceding semester.

To apply for an internship, a student, after consultation with one of the internship coordinators, a faculty internship adviser, and the intended on-site supervisor, must complete an Internship Agreement Form describing in detail the on-site project and the related theoretical work, the educational objectives of the internship, the student's relevant academic preparation, the bibliography of works to be read before and during the internship, and the evidence that the faculty internship adviser will evaluate to determine the grade. The faculty internship adviser and the on-site supervisor also complete parts of the agreement form in which their respective expectations are delineated. In addition, the student must secure the signature of his/her regular academic adviser(s) and, if the internship is to count towards a major or minor, of the appropriate department chairperson. Completed agreement forms must then be submitted to the internship office for final approval by both coordinators, after which the internship office assumes responsibility for registering the internship.

At the completion of the internship and before credit will be granted, the student must complete and submit to the internship coordinators a Student Internship Evaluation Form, in which the student reviews the original objectives and proposed activities as stated in the Internship Agreement Form, describes how they were achieved or modified in the course of the internship, and evaluates in some detail the practical and theoretical aspects of the experience. Postinternship evaluation forms are also requested from the faculty internship adviser and the on-site supervi-

Detailed information about internships, advice in planning, and all necessary forms are available in the internship office. Dr. Marjorie Fitzpatrick is the administrative coordinator for the internship program.

Tutorial Departmental Major Some departments may approve superior students as tutorial majors. Such a program differs from independent studies and research in several ways. For one, the student is guided in a program in the component areas of an entire discipline for approximately two years. That program's balance is ensured by prior departmental approval. Secondly, the student is free to take regular courses in the student's major discipline with the approval of the tutor. Normally the student will receive a letter grade for a 600 series course, but the Pass/Fail option is also available under the same restrictions as in standard courses.

The student meets on a regular basis with a tutor to discuss essays and readings dealing with particular problems posed by the tutor. Finally, the student sits for a comprehensive examination, both written and oral, administered by a committee composed of the department and one person outside the department. Normally, at least one-quarter of the student's final semester is given over to preparation for these examinations. One reexamination may be permitted within the calendar year. Students will be graded on the examination as having passed, failed, or passed with departmental honors. Approved students may register for up to four courses per semester under the tutorial rubric.

The Self-Developed Interdisciplinary Major The Dickinson College faculty represents in its members a diverse set of interests and perspectives that provides a considerable resource for those students who would like to develop a major around concerns that do not fall into traditional disciplinary areas. The option of a self-developed major is available to students who desire a somewhat different field of concentration which, although a recognized field of learning and relevant to the liberal arts, is not substantially addressed by any one department. Recent self-developed majors have included sustainable resource management, medieval studies, Latin American cultural and literary studies, and black studies.

Because of the special significance of ethnic studies and minority studies to students and faculty alike, students are encouraged to consider these areas for the development of self-developed majors (e.g., Afro-American studies, Hispanic studies). The knowledge gained from being educated about and in the midst of the diversity of ethnic and minority groups in the world can only broaden the perspective of all those involved in the process.

A student contemplating a self-developed major should prepare a proposal which includes those courses relevant to the topic and seek the written endorsement of four faculty members for the proposed major which shall consist of ten or more courses. The supporting faculty will secure the advice of chairmen of those departments in which the student contemplates course work for concentration.

The student must present this validated proposal to the Committee on Academic Standards for approval. The student in this program will work closely with an appointed adviser. Changes desired in this program will be submitted with the approval of the adviser in written form to the subcommittee for final approval. Under ordinary circumstances, a student accepted in a self-developed major may not apply any of the approved courses toward the completion of a departmental major or minor.

Upon the completion of every semester, each student involved in the self-developed major will submit to the subcommittee (with a copy to the adviser) an evaluation statement of progress and commitment to the major as a whole, experience in individual courses, and work with the adviser. The adviser will submit to the subcommittee, and to the student, an evaluation describing the student's progress, achievement, and commitment.

At the conclusion of the student's work, the transcript will describe the major as follows: Self-Developed Major: (Title).

# Study Abroad

### International Education

In an era characterized by increasing worldwide interdependence, the College recognizes its responsibility to maximize global perspectives in its educational programs so that students may gain the international understanding necessary to be informed citizens and world leaders. In on-campus academic offerings, courses with an international focus are offered in several departments. In addition, global perspectives and intercultural sensitivities are stressed in other ways, including the comparative civilizations program, the program in foreign languages with its required level of proficiency and emphases on literature and culture, double majors that combine language skills with study in other disciplines, and interdisciplinary area study programs in Western Europe, East Asia, Latin America, and Russia.

The College also encourages its students to investigate the appropriateness of study abroad to their educational objectives. When carefully planned in advance and integrated with a student's on-campus academic program, study abroad can be an integral part of the liberal arts experience, providing cultural enrichment, personal development, and intellectual challenge. Each year, at least half of all graduating Dickinson seniors have studied off campus; between 40 and 50 percent of all graduates have studied abroad.

The study abroad option is coordinated through the Office of Off-Campus Studies. Approval for participation in both Dickinson and non-Dickinson study programs is granted only after careful screening and selection processes. Successful applicants must demonstrate strong academic preparation, one common measure of which is a GPA at or above the college average, and the ability to articulate clearly-formulated goals for their chosen program of off-campus study.

The College sponsors several high-quality overseas programs for study during an academic year or a semester, as well as in the summer. These Dickinson programs maintain the College's academic standards while integrating study abroad with many of the major programs in the humanities, social sciences, and natural and mathematical sciences. A limited number of additional study-abroad possibilities is available for highly-qualified students through programs with which the College is affiliated. To learn more about all these offerings, consult the College's Off-Campus Study booklet as well as brochures describing each Dickinson program, available in the Office of Off-Campus Studies located in Cook International House. Financial aid for Dickinson students is available for all Dickinson-sponsored programs.

# Dickinson-Sponsored Programs

The Dickinson Program in Beijing, located at Renmin University of China in Beijing, provides an academic year or a fall semester of intensive study of Chinese language (Mandarin) at all levels. Chinese culture is explored through individualized independent study on topics of interest in contemporary China, as well as through optional courses such as calligraphy and Chinese painting. Limited opportunities for internships are available. Students live in an international students' dormitory on campus in northwest Beijing near other universities, markets, and wellknown historic sites. Two years of college Mandarin is required for admission.

The Dickinson Center for European Studies in Bologna offers courses in European history and politics, international studies, history of European political and social thought, international economics, Renaissance art, and Italian language. A unique offering is the Bologna Practicum. (See Interdisciplinary Studies in the Courses of Study section.) Courses are taught in English by the Dickinson director and faculty members from Italian universities and the Johns Hopkins School of Advanced International Studies. No particular major is a prerequisite. Participants who have not had one semester of Italian previously will be required to take Elementary Italian in Bologna.

The Dickinson Program in Bremen, open to students from all areas of the liberal arts who have a good mastery of the German language, is an academic year program at the University of Bremen in Germany. Students enroll in one required Dickinson course, Comparative Cultures: U.S.A.-Germany, taught by the resident director and take the rest of their courses at the University of Bremen. All course work is conduct-



ed in German. Limited opportunities for internships are available. Participants are fully integrated into university life at Bremen and have use of all university facilities.

The Dickinson Semester/Year Program in Málaga attracts students interested in all areas of the liberal arts who have a good mastery of Spanish, normally indicated by the completion of a course in Spanish conversation and composition. Spanish 243, Introduction to Literary Criticism in Spanish, is also required. The curriculum includes courses taught by the Dickinson director, courses organized and taught by faculty from the University of Málaga specially for the Dickinson program (see specific course offerings listed under the Spanish department), and regular courses at the Facultad del Filosofia y Letras of the University of Málaga. All course work is in Spanish. Students live and take all meals in local Spanish residences. Students may apply for either year-long or fallsemester study in Málaga.

The Dickinson Student Exchange Program In Moscow facilitates each year an exchange of students

for either a semester or an academic year between Dickinson College and Mendeleev University in Moscow. Dickinson students from all academic majors who have strong preparation in Russian concentrate on courses in advanced Russian language and culture at Mendeleev University in the center of Moscow. They have access to all facilities of the University, including housing with Russian students in student residence halls, also located in the center of Moscow. Opportunities for travel, including field trips and excursions to important cultural, historic, and educational sites in and outside of Moscow, are an important aspect of the program. Participants pay the on-campus Dickinson fee and thus participate at the same cost as if they remained in Carlisle.

The Dickinson Program in Nagoya is offered in cooperation with the Center for Japanese Studies at Nanzan University in Nagoya, Japan. Participants enroll for a semester or the full year in the Center's Japanese language courses and in courses on Japanese culture and civilization taught in English in a variety of disciplines, including history, literature, economics, political science, international studies, and

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fine arts. Participants are normally housed with Japanese families.

The Dickinson Program In Norwich, in cooperation with the University of East Anglia, Norwich, England, offers a full academic year abroad from early September to late June for students desiring to pursue disciplinary and interdisciplinary studies in the humanities and the social sciences. Using the exceptional resources of the cities of London and Norwich, the program begins in London with an intensive onemonth seminar in the humanities taught by the resident director. Moving to Norwich in early October, students continue their special study of the humanities through a second seminar-style course and take the remainder of their course work at the University of East Anglia where they enroll in a wide variety of courses in areas such as literature, drama, history of art, history, music, archaeology, philosophy, American studies, economics, and politics. In Norwich, students live in university residence halls in order to integrate themselves fully into British university life.

The Dickinson Science Program in Norwich, England encourages qualified Dickinson science students in biology, chemistry, environmental science, geology, mathematics and computer science, and physics to spend their junior year at one of the University of East Anglia's well-known Science Schools. Participants gain invaluable academic experience and insight from high quality teaching utilizing the latest technology and scientific equipment in well-equipped laboratories. Cross-registration in non-science courses is also possible. Students live in single rooms in residential accommodations on the main campus and are fully integrated into the social and intellectual life of the university.

The Dickinson Study Center in Toulouse draws students from all areas of the liberal arts who have a good mastery of the French language and have completed French 233 (Introduction to French Literature), or its equivalent. The program offers integrated study in French language, literature and society, intercultural communication, and fine arts. (See specific course offerings listed under the French department offerings.) In addition, students may enroll directly in courses offered at the University of Toulouse in subjects in the humanities, social sciences, and mathematics. Internships in both the public and private sec-

tors in the Toulouse area also are available. All course work is conducted in French. Participants are housed with French families in the Toulouse area. Students apply for the academic year, or, in exceptional cases, for the spring semester only.

The Dickinson Exchange Program In Yaoundé gives Dickinson students the opportunity to spend the spring semester (early January to mid-June) studying at the University of Yaoundé I in Cameroon, choosing from a wide variety of courses in African culture and history, as well as traditional offerings across several academic disciplines, taught in English. Individualized tutorials supplement classroom lectures. Students with sufficient command of French may also take Francophone course work. Students live in apartments provided by the university. Yaoundé, the political capital of Cameroon, provides unlimited opportunities for cultural integration.

Language Immersion Programs With support from the National Endowment for the Humanities, Dickinson College initiated in 1984 a series of summer language immersion programs that are offered at the following locations: Bologna, Italy; Bremen, Germany; Málaga, Spain; Moscow, Russia; and Toulouse, France. Directed by faculty members from the College's modern language departments, each program is designed to encourage students who have completed the 116 intermediate level to augment their required foreign language study by spending a month in a country in which that language is spoken. In addition to increasing their oral proficiency through sustained use of the foreign language both in and out of the classroom, students receive a first-hand introduction to the country's culture through formal instruction and actual day-to-day experience.

Classics Immersion Programs Students of Latin and Greek, and other students especially interested in classical antiquity, have the opportunity to choose from two immersion programs offered by the Classics Department on a two-year cycle. The program based in Rome and the Bay of Naples area focuses on the reconstruction of daily life during the Greek and Roman periods. The program based on the mainland of Greece and the island of Crete likewise aims to reconstruct a picture of life during the various historical periods of classical Greek civilization. Both programs relate classical texts to the surviving monu-



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ments of the ancient cultures and to objects of daily use found in museum collections.

The Marine Studies Program The Marine Studies Program is an interdisciplinary one-year experience which encompasses all aspects of learning for the liberally educated scientist. The curriculum includes traditional classroom lectures, intensive field study, and independent research. In addition, the program offers the opportunity for science students to observe and examine intensely a part of nature from four points of view (biological, chemical, geological, and physical) to understand better the interactions, the processes, and patterns in a distinct natural system.

Offered biannually to junior and senior science majors by the biology, geology, and environmental science departments, the program consists of three parts. The first is an oceanography survey course taken on campus in the fall semester. The second consists of a two-week field course to study the environments and organisms of the carbonate environments of San Salvador Island, Bahamas, during the January semester break (see course description with the Geology 304 listing). The final part is a spring semester independent project of the student's choice, begun during the field study experience.

#### Dickinson Summer Abroad Programs

Dickinson regularly conducts three foreign study programs during the summer term, two in Great Britain, and one in Cameroon. Financial assistance is available.

Fieldwork in Classical Archaeology Under the direction of the classical studies department at Dickinson, students participate in an archaeological excavation at a selected location of the ancient Greek and Roman worlds. During the four- to six-week program, the dig provides training in the techniques of field archaeology. The 1995 site was Melsonby, N. Yorkshire, England. This excavation seeks to put into historical context a hoard of Celtic artwork and weaponry discovered in 1843 and to determine the site's relationship to the Iron Age fortification at Stanwick, just to the North.

The Summer Session in England program offers students with an interest in fine arts, English history and culture, literature, music, and theatre the opportunity

to pursue study in London. Courses draw upon the libraries, museums, galleries, architecture, and cultural life of that city on a daily basis. Students learn to use the many resources of London to educate themselves. The summer session offers two inter-related courses in the humanities.

The Field School in Cultural Anthropology trains the student in ethnographic technique and analysis and provides the opportunity to experience actual field research in a supervised situation. Located in the town of Limbe, southwest province, in the anglophone region of Cameroon for 1996, this six-week experience teaches students to apply field methods, mostly qualitative, to the analysis of cultural, social, economic, and environmental systems.

#### Dickinson-Affiliated Programs

The Institute of European/Asian Studies offers study programs for juniors and seniors at thirteen various European university centers (Berlin, Dijon, Durham, Freiburg (2), London, Madrid, Milan, Moscow, Nantes, Paris, Salamanca, Vienna). In addition to the European programs, the Institute offers six Asian programs: Beijing, Nagoya, Tokyo (3). The Institute also offers two fully integrated programs at university centers (Adelaide and Canberra) in Australia. Each program offers unique perspectives and opportunities utilizing the particular academic and cultural resources of its location. Each center provides not only academic programs but also a full range of support services: housing, registration, academic advising, personal counseling, medical care, student activities, academic records, and the like. At each location, the Institute also provides orientation programs including intensive language study where appropriate. Students are recommended for admission to programs by the College. Limited financial assistance is available.

The Intercollegiate Center for Classical Studies in Rome Majors in Latin or Greek, or other students especially interested in classical antiquity, can spend one or two semesters at the Intercollegiate Center for Classical Studies in Rome. Classes in Roman archaeology/history, art history, Italian, Latin language and literature, and Greek language allow the student to develop a full program of study. Field trips to the Etruscan north and the Naples area are part of every

semester's work. The Dickinson classics department manages the Christopher Lee Roberts Scholarship which may be used for a semester at the center.

The Environmental Studies Program in Costa Rica A cooperative semester program in Sustainable Development sponsored by a consortium of academic environmental studies programs, in cooperation with The School for Field Studies, this program provides opportunities for first-hand study of the challenges posed by the search for sustainable development strategies under conditions of limited resources. Course work is at the intermediate level and includes independent study and field experience with a direct service component. The program is open to students from all majors and is offered both fall and spring semester. Limited financial aid is available.

School for Field Studies The School for Field Studies offers study and fieldwork in conservation biology and related subject areas. Full-semester programs are located at permanent Centers for Rainforest Studies in Australia, Wildlife Management Studies in Kenya, Marine Resource Studies in the Caribbean, Coastal Studies in Pacific Northwest Canada, and Island Studies in Palau. Students live and work at the site, attend classes taught by regular academic staff, and participate in cooperative and independent field research. In addition, summer and January term courses are offered at the four permanent centers and at additional sites throughout the world. Some financial aid is available.

South India Term Abroad Madurai, an ancient and colorful Hindu temple city in the south Indian state of Tamil Nadu, is the site for the fall semester South India Term Abroad program. Students live with Indian families and take classes (in English, except for a course in the Tamil language) with Indian faculty in subjects such as Indian history, art, literature, religion, and language. In addition, they complete an independent study designed with, and under the supervision of, the faculty director of the program. Students also take field trips to neighboring villages, temples, and cultural performances, as well as to other areas of south India.

Other Study-Abroad Programs As an option, students may be able to enroll directly in a foreign university, in specialized courses and institutes for foreigners at leading universities abroad, in internships overseas, or in American college-sponsored programs designed to meet the needs of American students who wish to pursue their educational interests in another part of the world. During the past five years, Dickinson students have studied for an academic year, a semester, or a summer in:

Argentina	Germany	Palau
Australia	Greece	People's Repub-
Austria	Hong Kong	lic of China
Belgium	India	Poland
Brazil	Ireland	Russia
Cameroon	Israel	Scotland
Canada	Italy	Singapore
Chile	Japan	Spain
Costa Rica	Kenya	Sweden
Czech Republic	Korea	Switzerland
Denmark	Madagascar	Taiwan
Ecuador	Mexico	Virgin Islands
England	Nepal	Wales
France	the Netherlands	

The Office of Off-Campus Studies has more information on programs and procedures.

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# Off-Campus Study in the United States

n academic year, semester, summer, or Jan-Auary term of study at a specialized program or other college or university in the United States may be appropriate for some students with strong academic preparation and clearly-formulated educational goals. Like study abroad, this form of offcampus study must be carefully planned and integrated with the student's on-campus academic program. Several institutions offer specialized learning opportunities and environments unavailable at Dickinson, utilizing unique resources that cannot be duplicated within the traditional on-campus classroom setting. Examples are programs that focus on topics and areas such as marine biology, Appalachia, the United Nations, urban studies, or American maritime studies.

Dickinson students have also taken advantage of guest student programs at major colleges and universities which permit students to enroll for a semester or the academic year in regular curricular offerings of the institution which are unavailable on the Dickinson campus. Dickinson students have recently studied elsewhere in the following academic areas: architecture, African-American studies, East-West comparative cultures, journalism, public communications, urban studies, archaeology, business, drama, ecology, studio art, and law.

The following pages present off-campus learning opportunities in the United States with which Dickinson is formally associated. Information on these and other specialized programs of study is available in the Office of Off-Campus Studies, located in the Cook International House.

The Appalachian Semester Program The Appalachian Program is a fall semester experience located in the heart of Appalachia at Union College, Barbourville, Kentucky. Open to juniors and seniors of all majors interested in studying the Appalachian region, its strengths, problems, and challenges, the program is strongly interdisciplinary in nature and includes three

courses plus credit for field work in a variety of disciplines. The Appalachian Semester Program is particularly recommended for undergraduates who plan to enter a service-oriented occupation.

South Asian Studies By informal arrangement with the University of Pennsylvania, well-qualified, highly motivated Dickinson students may elect to spend a summer, a semester, or a full academic year (normally the senior year) studying in the Department of South Asian Studies at the University of Pennsylvania. Such election shall be contingent upon recommendation by the student's major department at Dickinson, approval of the director of off-campus studies, and acceptance by the department at the University of Pennsylvania. Seniors completing the requirements for the Bachelor of Arts degree at Dickinson who are in residence at the University of Pennsylvania during the entire senior year are exempt from the Dickinson senior residence requirements.

Binary Engineering Program In the field of engineering, Dickinson College has a linkage program, the Binary Engineering Program, which enables Dickinson students to complete both a BS degree at Dickinson and a BS in engineering from the engineering school at the University of Pennsylvania, Rensselaer Polytechnic Institute, or Case Institute of Technology. The student spends the first three years at Dickinson and the final two at the engineering school, leading to a BS degree from both schools. The liberal arts-engineering combination is particularly appealing to those students who like the liberal arts and seek an engineering degree within the broadest possible curriculum. The Dickinson student receives a generous background in pure science along with course offerings in the humanities and the social sciences.

Candidates for the Binary Engineering Program should inform the dean of admissions of Dickinson College that they wish to apply for this program so that they may be assigned to the engineering student adviser. They also should request from the Dickinson admissions office a special booklet that describes the Binary Engineering Program in greater detail and gives suggested course schedules.

The Consortium Exchange Program Dickinson, Franklin and Marshall, and Gettysburg Colleges form the Central Pennsylvania Consortium. One of the advantages of this educational cooperative venture is that students have the opportunity to take courses at any member college. This program of exchange is encouraged because it allows for greater flexibility in a student's educational program.

The Office of Off-Campus Studies coordinates consortium exchange programs for students. The appropriate forms, catalogs, and other information are available there. Applications should be submitted to that office by April 15 for a fall semester, and November 15 for a spring semester.

Any Dickinson student who is approved by this College for study at Franklin and Marshall or Gettysburg College may take a course, several courses, a full semester, or a full year at the other college. Except for summer programs at the other colleges, the normal tuition fee is paid to Dickinson. No fees are paid to the other college except residence fees where appropriate. Grades, in addition to course credit, are transferred to Dickinson.

The Washington Semester Programs In cooperation with the American University and an allied group of colleges and universities, Dickinson offers to juniors and seniors the opportunity to participate in one of several academic programs sponsored by the American University in Washington, D.C.

The one-semester opportunities are: American politics, public law, foreign policy, international politics and diplomacy, international environment and development, museum studies and the arts, economic policy, justice, journalism, and peace and conflict resolution.

The usual course of study includes a two-course seminar which consists of readings, lectures, and discussions among students, faculty, and policy makers or other guest speakers. In addition, the program requires an internship that provides first-hand experience. The fourth component is the independent research project; however, the student may elect to enroll in a regular course offered by the university as an alternative.

Dickinson students are eligible to participate in the fall or spring semester.

### Academic Resources

- Library
- Computing Facilities
- The Writing Program
- The Writing Center
- · Media Services
- Fine Arts Gallery
- Observatory
- · Planetarium

#### The Boyd Lee Spahr Library

The primary mission of the library is to support the liberal arts program of Dickinson College. To this end, the librarians have a two-fold responsibility: to build and organize a library collection excellent in quality and quantity and to provide the best possible service to Dickinson faculty and students as they engage in the teaching/learning process.

The Boyd Lee Spahr Library, built in 1967, houses a collection of over 421,710 volumes, 156,476 government documents, 1,735 periodical subscriptions, 9,420 sound recordings, 2,049 videotapes, and 175,769 microforms. Open during the academic term for 103 hours a week, the library provides seating for 600, including honors carrels for students pursuing independent study. Stack areas with study spaces interspersed are located on the upper and lower levels. Reference and audiovisual areas are on the first floor. The Alexander Sharp Room on the first floor and the Alvah A. Wallace Lounge on the second floor provide attractive, comfortable study areas as well. The Morris Room on the second floor houses the library's Special Collections, its rare books, manuscripts, and the College Archives. The Morris Room serves as a laboratory for students in a variety of courses with research projects involving primary sources.

The services of the library are many and varied. In order to enable students to find the materials they need and to use them effectively, instruction in library use is a primary concern and is provided upon request in the library and in many classes. Librarians provide assistance at the reference desk every weekday, Sundays, and most evenings. The Interlibrary Loan Service, provided through a computer network, provides access to library collections nationwide. The audiovisual service

provides space and equipment for listening to the record and cassette collection and for viewing and printing copies of the extensive microform collection. Three photocopiers are available for student use on the first floor and a late-night study in the basement is open the second half of each semester. The data base search service, offering computer searching of many thousands of journals, government documents, and other printed materials, is available to faculty and to students doing honors and independent study.

In the spring of 1987, students and faculty began using AutoCat, the College's automated catalog, to access the library's holdings. Developed by a team of librarians and computer center staff at Dickinson, the system is designed specifically to meet the needs of undergraduates engaged in the study of the liberal arts. Containing bibliographic records for 99 percent of the library's books, periodical titles, scores and sound recordings, the system is available from more than a dozen terminals in the library and nearly 200 terminals and micros all over campus. The system, easy to learn and use, not only offers greatly expanded access to materials, but is also designed to encourage students to use the research process itself as a tool for improving the quality of their thinking on any given topic.

The library is a member of OCLC, Online Computer Library Center, Inc.; Palinet, the Pennsylvania Library Network; and ACLCP, the Area College Library Cooperative Program, all of which enhance the library's ability to provide access to the universe of information available to and needed by undergraduate students today.

#### Computing Facilities

Dickinson's faculty and students make extensive use of computers for word processing, statistical analysis, electronic mail, programming, and searching the online catalogue of the library. For academic use, there are over 700 microcomputers (primarily IBM-compatible and Apple Macintosh) and 125 terminals linked to three central DEC Alpha machines and a separate computer system for administrative computing. Over 75 of these microcomputers and 28 terminals are available for student use in four public microcomputer rooms and three public terminal rooms. Another 160 micros and 20 terminals are available for students in physics, mathematical sciences, psychology, and other specific departments. The mathematical sciences department also has a microVAX and three Sun Work-

Stations, with a variety of programming languages.

Software available includes word processing software such as WordPerfect, statistical software such as SPSSx and MINITAB, programming languages such as Pascal, C, Fortran, Basic, etc. Dickinson's electronic mail software allows communication between virtually all members of the campus community, and, through the Internet with those at other colleges and universities, as well as government and commercial facilities. Its library catalog software on one of the Alpha machines allows users to search through the library holdings from almost any microcomputer or terminal on campus.

Use of the College's computing facilities is free for all students and staff. All incoming students are automatically assigned accounts on one of the Alpha machines and are offered an introduction to the college's computing facilities, to electronic mail, and to word processing as part of orientation. Instruction on using various computers and software packages is available in short seminars and in-class sessions. Student consultants are available in microcomputer rooms. Handouts, manuals, and newsletters are also available in the computer rooms.

Dickinson participates in several purchase plans allowing students and staff to purchase computers, software, and accessories at substantial discounts. Over 40 percent of students have their own microcomputers; those living in most on-campus housing can connect these, at no cost, to the central computer to allow e-mail and Internet access from their rooms.

The computer services offices and the central computers are located in South College. Those wishing additional information about academic computing should contact the coordinator of academic computing.

### The Writing Program

At Dickinson, writing is taught across the curriculum, in all departments, at all levels. The writing program insures that students graduate with the writing skills they need to be productive citizens in personal, professional, and civic endeavors. The program includes four basic pedagogical components: the freshman seminars, writing courses in the English department (see English Department), Writing Enriched courses across the curriculum, and the Writing Center. In the freshman seminars, students are given extensive practice and instruction in basic expository writing



which will serve them well during the rest of their academic career. They will also take Writing Enriched courses all four years at Dickinson and in almost every department. These courses emphasize mid-process feedback so that students have a chance to make rhetorical and stylistic improvements in their work while it is still in the drafting stage.

Students can also put their writing skills to use in a variety of cocurricular activities including the college newspaper, *The Dickinsonian*; the literary magazine, *The Dickinson Review*, published by the Belles Lettres Society; and the yearbook, *Microcosm*.

#### The Writing Center

The Writing Center, located in the HUB next to the Microcomputer Room, is a resource to assist students in all courses from Freshman Seminar to senior seminar. Writing Center consultants are Dickinson students trained to be critical and sympathetic readers of writing in progress. They help students see their writing from a fresh perspective and assist them in the process of revising and improving their writing. In one-on-one conferences, consultants work with stu-

dents to examine the requirements of an assignment; analyze a paper's thesis, organization, argument, and evidence; and recognize the importance of appropriate style, tone and diction. Consultants are available to work with all students on a walk-in basis and with particular students in Writing Enriched courses, which emphasize writing as an essential aspect of learning.

#### The Instructional Media Center

The Instructional Media Center, located in Bosler Hall, is home to a campus organization that supports teaching. Services available at the center include the making and duplicating of cassette tapes, ordering and previewing of films and videotapes, slide making, video production, mounting of photos and posters, the loan of equipment, help using audio-visual materials, and a variety of other, less common services. We support the new multimedia modes, such as CD-ROM and laserdisc, and help faculty develop multimedia. We also support World Wide Web development.

The center supports the language laboratory, which is used by all modern languages.

The center also houses the College's videotape library, and provides viewing facilities for students and faculty, and a multimedia/Web lab for faculty.

Beginning in 1984, the center has worked extensively with satellite communications. There are now nine receiving systems which allow students and faculty to watch live television from around the world. Receiving facilities are in a number of dormitories.

The production and editing of videotapes is another center task. Each year, students from a variety of disciplines help generate scripts, do camera work, act as talent, edit, and help generate computer graphics for tapes used by the faculty.

#### The Trout Gallery

The Trout Gallery is a bi-level exhibition facility located in the Emil R. Weiss Center for the Arts. Along with housing the College's permanent collections of art—which range in time from Classical Greece to the 20th century—The Trout Gallery maintains a varied and frequently changing exhibition schedule of contemporary as well as historically important works of art. The Trout Gallery is, at once,

an educational branch of the College and a fine arts museum for the Carlisle/greater Harrisburg area. Its public lectures, symposia, and educational programming include an active community education and outreach project for area school children, senior citizens, and others.

The Gallery is used directly as a teaching aid for studio art, art history, modern languages, international studies, and classical archaeology courses. Programs have included an exhibition of 19th-century landscape paintings in conjunction with course offerings in art history and geology. Similarly, an exhibition of Tibetan art was held in conjunction with an all-campus celebration of Tibet and courses offered by the religion department on Tibetan religion and culture. Since 1991, the Gallery has sponsored an exhibition and candlelight vigil to commemorate World AIDS Day. These events have helped to galvanize the college and local communities by providing information on educational resources and support agencies.

Dickinson students can participate in the ideation and production of such interdisciplinary programs. Advanced fine arts students have also been afforded the yearly opportunity to curate an exhibition of objects from the College's collections. Furthermore, students of the studio program mount a juried show of their work each spring. Internships in the gallery are also offered to superior fine arts majors during their senior year. The Gallery thereby offers the unusual opportunity for undergraduates to undertake research and have direct contact with original works of art.

#### Observatory

The Bonisteel-Yeagley Observatory is housed atop Althouse Science Hall. The Observatory, equipped with a 14-inch Schmidt-Cassegrain reflector and an assortment of smaller telescopes, is extensively used in introductory courses and for student research projects. The 14-inch telescope is equipped with a photometer for BVRI photometry and a CCD camera for VR photometry. Recent observatory projects have included the installation of the CCD system and its use for the photometry of variable stars, particularly short period eclipsing binary stars, the design and construction of a radio telescope, and astrophotography of a variety of objects.

Dickinson students also have access to Lowell Observatory's 31-inch telescope through the National Undergraduate Research Observatory Consortium, of which Dickinson is a charter member. Located near Flagstaff, Arizona, the Lowell 31-inch is equipped with a photometer and a large format CCD camera.

#### Planetarium

The Roscoe O. Bonisteel Planetarium is housed in Tome Scientific Building. Planetarium programs are produced with substantial work study student participation for the college community, local schools, and the general public. Public shows have included programs commemorating the birth of Albert Einstein 100 years ago; exploring the connection of Mayan civilization with the heavens; celebrating our first steps into space; celebrating the return of Comet Halley; and a variety of programs summarizing recent astronomical developments such as planetary probes exploring the solar system. Show topics range from introductions to the summer, fall, winter, and spring, to the various topical shows covering the world from Carlisle to China and over time from humankind's earliest attempts to find meaning in the heaven's to the latest in space technology. Audiences ranging from pre-school groups to retired citizens comprise the typical yearly attendance of over a thousand people.

### The Clarke Center

he Clarke Center for the Interdisciplinary Study of Contemporary Issues is founded on two principles. First, the Center affirms Dickinson's belief that education in the liberal arts is the best preparation for the challenges of citizenship and career. Programming aims literally at "bringing the liberal arts to life" by connecting students' experience in the classroom with compelling issues confronting our local, national, and international communities. Second, the Center emphasizes the application of interdisciplinary approaches to contemporary issues. Five of the College's interdisciplinary programs-American Studies, Environmental Studies, International Studies, Policy Studies, and Women's Studies—sponsor the Center. All activities are open to participation by the entire Dickinson community, however.

The Center is named for Dickinson Trustee Henry D. Clarke, Jr., founder and chief benefactor. Staff includes the Director, Professor of History Neil B. Weissman; Associate Director Michele Hassinger; and eight to ten student workers and interns. Extensive responsibility for designing, publicizing, and implementing programs is assigned to the student staffers, who receive valuable organizational experience. Ideas for individual programs and events are solicited from all Dickinsonians—students, faculty, administrators, trustees, and alumni. Center activities include the following:

Lectures, panels, symposia. The Center sponsors presentations ranging from individual lectures to symposia or conferences, each focusing on a pressing contemporary issue. During the fall semester of 1995, for example, Center sponsored events focused on free speech and harassment on college campuses, multicultural education, the politics of white identity, media and the judicial system, the crisis in Bosnia, and grassroots environmental activism.

Annual theme. Each year, the Center devotes a major portion of its resources to activities organized around a single topic or theme. Lectures, panels, and sym-

posia on the topic are coordinated with academic course offerings. Annual themes to date are Democratization (1994-95), Race & Ethnicity: The Politics of Identity (1995-96), and Environmental Sustainability (1996-97).

Visiting Fellows. During every semester, the Center brings to campus a group of visiting fellows, or "teacher practitioners." Fellows are leaders from business, government, the media, and other fields who by virtue of their experience and accomplishments can enrich students' understanding of the connections between the liberal arts and citizenship. They make presentations to the community and participate in classes. Fellows for 1995-96 included Carlin Romano. literary critic for the Philadelphia Inquirer, William Howard, presiding judge in the Susan Smith murder trial; Peter Montague, community activist and Director of the Environmental Research Foundation; and Crisenzio Arcos, former U.S. Ambassador to Honduras and AT&T Vice President for Latin American Affairs.

Campus forums. In order to encourage thoughtful debate of questions directly confronting the Dickinson community, the Center and the Student Senate co-sponsor periodic forums, and discussions of compelling campus issues. These events bring together students, faculty, and administrators for open conversation. Recent forums included business education at Dickinson and financial aid policy.

Field experience program. The Center seeks to provide students with direct experience in the community. Individual students are offered opportunities to work in business, government, political organizations service agencies, and other organizations to deepen the lessons learned in the classroom. Opportunities range from short-term volunteer activity to more extended involvement.

Interdisciplinary education. The Center encourages efforts to enhance the College's interdisciplinary course and program offerings. Activities range from support for individual faculty in designing courses to conferences on interdisciplinary education.

# Academic Policies and Procedures

### Information for Students Who are Enrolled for a Dickinson Degree

Enrollment and Registration New students plan their course schedules with a faculty adviser assigned during the orientation period of their first semester. During each subsequent semester, students plan their course schedules with their adviser during a week of preregistration which occurs in November for the spring semester and in April for the fall semester. Registration takes place the day before the start of regular classes each semester. Freshman seminars begin during the orientation period and are assigned on the basis of a preference questionnaire submitted during the summer.

All students must either attend express registration or regular registration. Express registration is held the day before regular registration and is for returning students who do not need to make changes to their schedules (course deletions are permitted). Regular registration is for all new students as well as returning students who must confirm or change their course selection. Students who must be absent from registration should notify the registrar's office in advance. Otherwise, preregistered courses will be cancelled from their schedule.

All college tuition and fees must be paid prior to the student's registration. A non-refundable deposit of \$300 is due prior to preregistration each semester and is applied to the next semester's costs.

Course Load and Credit A full-time course load is between three and five and a half courses per semester. A typical schedule is four courses each semester, although students must schedule two semesters of five courses to complete the graduation requirement of 34 courses in eight semesters. Students who desire to carry fewer than three courses must receive permission to be part-time from the registrar. To take more than five and a half courses, a student must petition the Committee on Academic Standards through the Office of the Registrar.

Each course, unless otherwise noted in the course description, is equivalent to four semester hours. Credit for courses is based on the assumption that at least three hours of study accompany each period of recitation or lecture. Half courses exist in only a few departments and may meet either for only half the semester or on a half-time basis for the entire semester. Physical education courses and some military science courses carry no academic course credit.

Changes in Course Schedules Students may make changes in their course registration during the two weeks (14 calendar days) following registration. No change in registration is official until an add/drop form signed by the student's adviser and the instructor, when required, is filed in the registrar's office. Starting a course after the first full week of classes is usually not advisable. Changes to or from the pass/fail option and in the use of the audit status require an add/drop form.

Changes in Course Level Certain courses in the languages, sciences, and mathematics are offered at several levels. Students who find themselves enrolled at an inappropriate level in these courses may change levels with the consent of the instructor(s) and the adviser during an additional period of approximately two and a half weeks. (See College calendar for exact date.)

Auditing Courses A student may attend a course without credit by registering to audit the course. The permission of both the instructor and the student's adviser is required. Audit registration occurs during the course-change period. A student who has received credit for a course may retake the same course on an audit basis. Students who are enrolled for three or more courses may audit without an additional fee. The instructor stipulates the requirements of the course for all auditors early in the semester. Courses taken as audits do not appear on a student's transcript unless the instructor authorizes such an entry at the end of the semester.

Late Changes in Course Schedule Add/drop and change-in-level deadlines are significant points in the semester beyond which any change in schedule affects academic performance. For this reason, students who want to make additions or changes in the level of their registration after these deadlines must make their request by petitioning the Committee on Academic

standards through the Office of the Registrar. A student may withdraw from courses until 15 days after Roll Call of each semester. After this period, withdrawal will require a full review before the standards committee. Withdrawal from a course will be indicated by the entry of a "W" grade in the student's record. Withdrawal is not an option for physical education courses. The option to withdraw from a course and the use of "W" grades without prior review and approval by the Committee on Academic Standards is limited to two courses during a student's Dickinson career. Withdrawals involving a change from full-time to part-time status will be accepted only if the change of status has received prior approval by the registrar. A student may petition the standards committee to drop a course from the record only when, through no fault of the student, no substantial participation in the course has occurred.

Grading Faculty report an evaluation of student performance twice each semester. At mid-semester (Roll Call), the following grades are reported for all students: "S" indicating satisfactory achievement to date (work of "C" quality or above), "U" indicating unsatisfactory achievement (work of "C-" or below), "I" indicating incomplete work outstanding, and "NE" indicating no evaluation made by the faculty member (applicable to an entire course or section). These roll call grades are sent to students, advisers, parents, or guardians and serve as a useful benchmark for progress; however, they do not become part of the student's permanent record. At the end of each semester final grades are reported which become part of the student's permanent record. Once a grade has been reported to the registrar's office, it may not be changed unless the change has been requested by the instructor and approved by the dean of the College. Students who think that a final grade may be inaccurate should begin by contacting the professor as soon as possible. Grade changes need to be submitted to the dean of the College for approval by no later than Roll Call of the subsequent semester.

Most coursework, independent study, and independent research work are graded on an A through F grading scale incorporating pluses and minuses. A student's cumulative average is based on letter grades received in Dickinson courses and at other colleges in the Central Pennsylvania Consortium (Franklin and Marshall and Gettysburg). Two other grading options, pass/fail and credit/no credit, exist and are explained below.

A through F Grading: All courses are offered for a letter grade unless otherwise listed in the catalogue or in the registration booklet. The letter grades reflect the achievement of Dickinson students in the following manner: A, exceptionally high level of achievement; B, substantial level of achievement; C, satisfactory level of achievement, the minimum average grade required for graduation; D, minimal level of achievement required to receive course credit; F, unacceptable level of achievement. Plus (+) and minus (-) are gradations of the A to D scale.

A student's cumulative average is based on the numerical value assigned to letter grades:

A	4.00
A-	3.67
B+	3.33
В	3.00
B-	2.67
C+	2.33
C	2.00
C-	1.67
D+	1.33
D	1.00
D-	0.67
F	0.00

Pass/Fail Grading: The pass/fail grading system is an option intended to encourage students to enroll in coursework containing subject matter or approaches unfamiliar to them and for which they do not wish a letter grade evaluation. This option is available on a limited basis to students after the first semester of their freshman year.

Under this system, "pass" is defined as work of a quality earning a grade of at least "C" and "fail" is defined as work of a quality earning a grade of "C-" or below unless the instructor indicates a different criterion for the grade of "pass." Taking a course on the pass/fail basis requires approval of the instructor. It is the responsibility of each individual instructor to indicate at the beginning of the course the standards for passing and failing work in that course. Some departments may prohibit use of the pass/fail option in specific courses and, normally, pass/fail work should not be included among courses taken for the major or minor program requirements. In courses numbered 300 and above, pass/fail may be taken by permission of the instructor only. Courses taught on the credit/no credit system may not be taken on a pass/fail basis. Students may take no more than one course on a pass/fail basis each semester and no more than a total of four pass/fail courses among the 34 required for graduation. Changes to or from a pass/fail grading basis must be made during the add/drop period.

Credit/No Credit Grading: Credit/no credit grading, in contrast to the pass/fail system, is not the student's option. Each semester a few courses are offered on the credit/no credit basis at the request of the instructors and with the approval of the Committee on Academic Standards. All students registering for a course offered for credit/no credit will be evaluated on that basis. Mastery of the course's objectives is considered a satisfactory completion of the course and results in a grade of "credit." Failure in the course results in a grade of "no credit." All internships are graded on a credit/no credit basis. As with the pass/fail system, neither grade results in a change to the student's cumulative average. The option to enroll in credit/no credit courses is open to all students including first-semester freshmen (except internships, normally limited to juniors and seniors) with no maximum number of credit/no credit enrollments.

Incomplete Grades: A grade of "incomplete" may be reported only in cases in which illness or other serious emergency has prevented the student from completing the work for the marking period. No incomplete is in effect until a form has been filed with the registrar that states the reasons under which it has been granted, contains an evaluation of the student's work to the date of the incomplete, and is signed by both student and instructor. An incomplete may not be reported because of negligence or procrastination on the part of the student. In addition, this temporary grade may be reported only if the student has done satisfactory work in the completed portion of the course. An incomplete grade must be cleared before Roll Call of the following semester unless an exception is granted by the Committee on Academic Standards. In every case, the incomplete must be cleared before the end of the second semester following. If an incomplete has not been cleared within stipulated time limits, the appropriate grade indicating a lack of satisfactory completion will be recorded.

Grades in Year Courses: Independent Study and Independent Research registered for year-long activity, as well as the Latin American Studies Senior Seminar and the International Studies Senior Seminar, may receive either a letter grade for the term or an "S" grade with course credit. Upon completion of the second semester, an "S" grade may be converted to a letter grade along with the second semester's letter grade and credit.

Course Failure: A letter grade of "F," a "fail" under the pass/fail system, or a "no credit" under the credit/no credit system are all evaluations expressing failure in a course. The letter grade of "F" results in a reduction of the cumulative average, while "fail" and "no credit" do not change the average. A failed course may be retaken for credit. In the case of letter-graded courses, both the original grade and the new grade are calculated in the average. All failing grades continue to appear on the student's academic record regardless of course repetition.

A final semester senior who does not receive credit for a course only because of a failure in a final examination may apply for one reexamination in each such course, provided the failure is not due to dishonesty. After successful reexamination, a new course grade may be recorded that will be no higher than the minimum passing grade in the applicable grading system. If a reexamination is allowed it shall be conducted by a committee appointed by the chairman of the department in which the failure occurred and shall be conducted within 10 days of the date of the original examination, except when an extension is granted by the Committee on Academic Standards.

Progress toward the Degree: Normally, students complete either the B.A. or the B.S. degree programs in eight semesters by taking four or five courses per semester. Students are expected to meet all requirements for graduation in effect at the time of their acceptance. Responsibility rests with the student for the election of such courses as will satisfy the requirements of the College for graduation. Freshmen become sophomores when eight courses creditable toward graduation are completed. Sophomores achieve junior status after 16 courses and juniors become seniors after 24 courses.

A minimum of 17 courses must be taken on the Dickinson campus. Students must be accepted in a major field of concentration by the time 22 courses have been completed. Six of the last eight or the last four courses in a student's program must be taken on campus in order to fulfill the senior residence requirement. All course work taken at other institutions after admission as a degree candidate must have prior approval from the director of off-campus studies.

Minimum Standards The minimum average for a freshman to be in good academic standing is 1.75. Sophomores must have either a minimum of 2.00 for the year or a cumulative average of 2.00 at the end of the sophomore year. Juniors must have a cumulative average of 2.00 at the end of the junior year. A senior to be graduated or to remain in good academic standing must have a minimum of 2.00. In addition to these minimum standards, a student on probation must show significant improvement during the following semester in order to remain at the College. Normally, a student may not remain at the College with three consecutive semester averages below 2.00.

The faculty assumes that every student admitted to Dickinson will be able to qualify for graduation. However, the opportunity to continue at Dickinson is a privilege that a student must earn by academic achievement. A student who fails to meet the minimum grade point average for his or her class will be required to withdraw unless the Committee on Academic Standards takes action otherwise. Dickinson College reserves the right, at any time, to require withdrawal from the College of any student whose academic performance or personal conduct on or off the College campus is, in the sole judgment of the College, unsatisfactory or detrimental to the best interests of the College. Neither the College, nor any of its trustees, officers, faculty, or administrative staff shall be subject to any liability whatsoever on account of such action. Action by the Committee on Academic Standards may include a warning or placing a student on academic probation.

The Committee on Academic Standards interprets and applies these standards on a case-by-case basis at the end of each semester.

The Committee on Academic Standards may warn a student if

- -his or her semester average falls below the minimum required cumulative grade point average even when the cumulative average allows the student to remain in good academic standing;
- -continued performance at current level would remove student from good academic standing; or
- -his or her average for the sophomore year meets the requirements for good standing, but the cumulative average is below 2.00.

The Committee on Academic Standards may place a student on academic probation if

- -the student has proven ability to achieve the established probationary average;
- -a low semester average does not include any failing grades; or
- -for a student on probation, the average earned in the semester met or exceeded the established probationary average when the cumulative average remains below the minimum for good standing.

In addition to maintaining a minimum grade point average, students are expected to make satisfactory quantitative progress toward the completion of degree requirements. Satisfactory progress toward the degree is measured at the end of each academic year. Fulltime students are expected to progress one grade level each year. For students who fail to progress one grade level and for part-time students, satisfactory academic progress will be measured by comparing the number of courses attempted to the number completed successfully. Attempted courses include all withdrawals, incompletes, and failures. To be considered to be progressing satisfactorily, students must have completed successfully the following percentage of courses attempted:

> 60 percent Freshman 70 percent Sophomores Juniors, Seniors 80 percent

Students who fail to meet these requirements will be required to withdraw from the College unless the Committee on Academic Standards determines otherwise. In certain circumstances, students who fail to meet these requirements will be permitted to continue at the institution for one semester on academic probation. Students on academic probation are determined to be making satisfactory progress for the purpose of receiving financial aid.

Procedures to qualify for readmission are found on page 24.

Dean's List Annual recognition awarded to students whose grades were in the top five percent of their respective classes for the academic year.

Credit for Course Work at Other Institutions Course work submitted by transfer students is evaluated by the registrar after a preliminary and tentative appraisal has been performed by the admissions counselor. In general, coursework taken at accredited colleges or universities that parallels the curriculum at Dickinson is transferable provided grades of "C" (2.00 on a 4.00 scale) or better have been earned. A maximum of 17 courses may be accepted for transfer. Transfer students must then complete the remaining 17 courses toward graduation on campus.

Dickinson students who desire to study away from campus for summer study or during the academic year must obtain prior approval of the program of study from the director of off-campus studies and their academic adviser. For matriculated students, Dickinson accepts for transfer credit course work with a grade as low as Dickinson's lowest passing grade. Students in good academic standing may receive up to a total of four transfer course credits for summer or January-term study at other approved institutions; they may be taken in a combination of one or more summers. Off-campus study during the academic year is normally limited to a maximum of four and a half courses for one semester or nine courses for a full academic year. (See in absentia under Changes in Student Status.)

In addition, off-campus study in the senior year, if it precludes a student from being on campus for six of the last eight courses, or the last four courses, preceding graduation, requires special approval from the director of off-campus studies. Special approval is also necessary for participation in more than two semesters of study off campus or for participation in more than one off-campus program.

Final determination of credit and satisfaction of Dickinson distribution and language requirements will be determined by the registrar.

#### Changes in Student Status

In Absentia (Off-Campus Study) A student who is given prior approval to study at another institution during the academic year and while enrolled at the College is considered to be in absentia. Approval for this status can be granted for one semester or one year by the director of off-campus studies. In absentia students may transfer up to one full year of academic work if prior approval of the program has been obtained. Students planning to be in absentia preregister for off-campus study but normally do not pay tuition or fees to Dickinson. Upon return on schedule to the College, they do not need to apply for formal readmission.

Leave of Absence An approved leave of absence for one semester or one year enables a student to maintain enrollment at the College but does not permit any academic work to be taken for subsequent transfer credit. This status may be granted by the Office of Student Services and the Office of Academic Affairs and is subject to renewal. Students who return on schedule do not need to apply for formal readmission. Students should contact the Office of Student Services to obtain the appropriate forms and information and to schedule an exit interview.

A voluntary leave of absence may be granted prior to the date of Roll Call for any given semester. "W" (for withdrawal) grades will be recorded in lieu of a regular grade for all registered courses. A student may be required by the dean of the College to take up to one semester's leave of absence if such action is judged to be in the student's academic interest.

The College reserves the right to require a leave of absence for medical reasons at any time it is deemed reasonably necessary to protect the student, other students, members of the College community, or the interests of the College itself. Before a student returns from a medical leave of absence, a clearance interview with a member of the counseling or student health services staff, as well as additional documentation, may be required.

Withdrawal Withdrawal from the College, whether voluntary, required, or administrative, discontinues one's enrollment as a degree candidate. A student who withdraws and later wishes to return must make formal application to the registrar for readmission. If the student's average was below the minimum class standard, the application will be considered by the Committee on Academic Standards. When possible, the student's academic adviser at the time of withdrawal will be consulted as a part of the committee's consideration of an application for readmission. If the student was required to withdraw for non-academic reasons, the application process will normally also include a clearance interview with a member of the counseling staff, as well as the possibility of additional documentation being required. Any conditions set forth by the College when the withdrawal became effective must be satisfied at the time of application.

A student may withdraw voluntarily at any time, with "W" grades being recorded for all registered courses if the withdrawal is made on or before the last day of classes. If withdrawal is made during the final

examination period, regular grades will be recorded. Students should contact their class dean to obtain the appropriate forms and information and to schedule an exit interview.

Students whose academic average falls below the minimum standards for their class are required to withdraw. The Committee on Academic Standards may make an exception and allow a student to continue enrollment on academic probation for which special requirements are established. A student may be eligible to apply for readmission by attending an accredited institution for one semester (not a summer session) with a full program of study approved in advance by the Office of Academic Affairs and the Committee on Academic Standards, attaining a minimum average of 2.25, and having no grades lower than a C. Military service or satisfactory employment for at least one year may be substituted for a semester of academic work. Note: See page 24 of catalogue for additional criteria for readmission.

Students who fail to preregister or register and who do not inform the College of their plans will be administratively withdrawn. Such students may apply for readmission. Note: See page 190 for regulations regarding withdrawal from a course.

All withdrawn students who subsequently apply for readmission should be advised that favorable action in readmission, either by an individual or a committee, does not necessarily constitute a guarantee of a space in the College. In other words, it is quite possible that a student applying for readmission might have fulfilled all requirements or conditions for readmission but still be denied access to the College for a particular semester or year because of space limitations.

Dismissal A student required to withdraw for a second time for academic reasons is dismissed from the College without the privilege of readmission at any time.

### Information for Students not Enrolled for a Dickinson Degree

Enrollment and Registration Students not enrolled for a degree are admitted to the College through either the Office of Admissions or the Office of Continuing Education, depending on their status. Either office can advise students on the proper procedure to follow. Continuing education students add courses during the add/drop period. Non-degree students admitted through the Office of Admissions are considered special registrants for their first registration, and they participate in registration. Subsequent semester course scheduling by these students occurs through normal preregistration and registration procedures. Registration priority after the first semester is determined by the number of courses completed.

General Policies and Academic Standards A nondegree student must meet the same minimum standards required of a degree candidate. As with registration priority, the number of courses completed will determine classification and applicable standards.

A non-degree student may be part-time (fewer than three courses) or full-time (between three and five and one-half courses) depending on the circumstances of admission. This status can be changed only by agreement with the office that admitted the student.

Non-degree students who are attending Dickinson while enrolled in another institution must be in good academic standing at their home school and have the recommendation of the appropriate official responsible for approval of their program. It is the responsibility of such students to obtain all advice necessary regarding their course selections and various grading options from their home institution.

Conversion to Degree Status Non-degree students may apply to the Office of Admissions for regular admission. If admission to degree status is approved, all coursework completed at Dickinson will be accepted toward the degree, provided that the student has more than 12 courses remaining to graduate. At least 12 courses must be taken while enrolled for a degree and with an approved major field of concentration. A minimum of 17 courses must be taken at Dickinson. In general, coursework taken at accredited colleges or universities that parallels the curriculum at Dickinson is transferable provided grades of C (2.00 on a 4.00 scale) or better have been earned. In general, the student must meet all requirements for graduation in effect at the time of acceptance.

### The Community

# Living and Learning on Campus

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t Dickinson College the living/learning environment extends far beyond the limits of the classroom, library, or laboratory. Whenever and wherever students congregate with their peers or with other College community members, there is conversation and collegiality. The mix of faculty, staff, and students from varied backgrounds and disciplines shapes Dickinson campus life, and learning occurs in the classroom, on the athletic field, in the art studio, in the social lounge, and in the residence hall, from early in the morning to late into the night.

As members of the Dickinson College community, students are expected to conduct themselves in a manner consistent with the pursuit of the College's educational objectives and conducive to the health and safety of others. All students are expected to be familiar with the policies in the Student Handbook printed and distributed annually by the Office of Educational Services. Dickinson subscribes to the principles of the AAUP Joint Statement on Rights and Freedoms of Students and seeks to regulate student conduct only in those areas relevant to the College's function as an academic institution.

Students at Dickinson participate in an impressive array of activities. There are tremendous opportunities for students to develop and strengthen their values through intellectual, athletic, cultural, and social experiences. Dickinson students contribute significantly to the all-College governance structure. Determining budget priorities for administrative offices and student organizations, establishing campus policies, and interviewing candidates for faculty and administrative positions provide students with meaningful learning experiences and involve them in the decision-making process of the College.

All campus residences and students living off campus elect representatives to the Student Senate. Student Senate appoints student representatives to serve on all-College committees, attend faculty meetings, and serve on the college judicial board. Through majors committees, students participate in the decision making of academic departments. Student committees, working with student services professionals, are responsible for planning and presenting social and cultural programs on campus.

All full-time matriculated students are required to reside in College-operated housing and participate in the College board plan. Part-time students desiring College housing will be accommodated if space permits. Most Dickinson students remain on campus on weekends, choosing to take part in the wide range of cocurricular and extracurricular activities offered by the College under the auspices of academic departments and the Division of Educational Services and Student Affairs. The opportunity for students to plan and participate in these activities and to assume leadership positions in a broad spectrum of student organizations enhances education at Dickinson. In the area of student media, production of publications and broadcasts creates more opportunities for students to integrate learning into their lives. This involvement contributes to the high student retention rate at the College.

#### The Student Code of Conduct

Student members of the Dickinson College community are considered adults who are expected to take personal responsibility for their own actions. Neutral listening and mediation are informal processes for resolution of student conflict available through the health educator or director of religious affairs. The kinds of misconduct for which students may be subject to judicial action are defined in the Code of Conduct, published in the Student Handbook. The College's judicial processes are not designed to adjudicate major criminal offenses (felonies), and these will be referred to legal authorities off campus. On-campus adjudication does not preclude or limit a student's access to the Commonwealth judicial system.

Students who have been accused of violating the Code of Conduct may have their cases heard by an administrative hearing officer who is a member of the student life staff. Serious allegations will normally be heard by a hearing board composed of members of the faculty and students and chaired by an associate dean of educational services. Allegations of faculty actions that are violations of the "Guidelines on Faculty Conduct" are first heard by an associate dean of the College. The judicial system administrator receives all complaints, notifies respondents, and advises both parties of their rights and responsibilities. In all cases of major social violations—those that may entail the penalties of expulsion, required withdrawal, or suspension of a student, and in all cases involving offenses against the academic process, the student has the right to be heard before a hearing board.

An appeals board chaired by the dean of the College or the dean of educational services and composed additionally of one faculty member and one student reviews all appeal requests.

### Arts and Languages

Cocurricular activities of the College augment the traditional curriculum in the arts and languages. Under the supervision of faculty directors, these activities present the challenge and enjoyment of performance and production. Students and members of the faculty together engage in the instruction, practice, and performance of music, drama, and dance. Language houses and clubs extend the study and exploration of foreign languages and cultures.

### Music

The cocurriculum in music at Dickinson College is unique in its purpose and scope, and the level of student participation and enthusiasm for music making at Dickinson reflects the success of the program. There are three foundations to a college education in music whether one is a major or simply a participant: courses in music history and theory present the cultural focus of the literature in music; applied lessons in instruments and voice taught on an individual basis develop the student's technical and interpretive abilities; and the cocurricular ensembles offer the student an opportunity to enjoy these skills through regular rehearsal and performance. In presenting these three dimensions, the music faculty work closely as a team. The Weiss Center for the Arts provides complete facilities for instruction, individual practice, rehearsal, and performance.

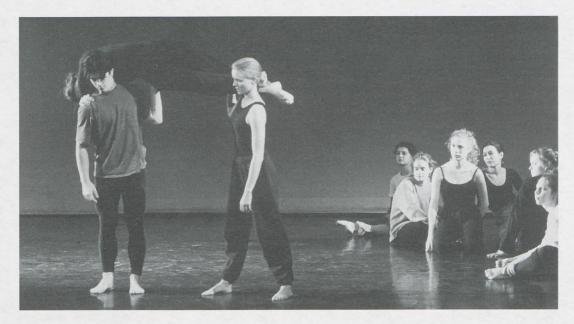
The ensembles described below are all directed by professional musicians and are open to all Dickinson students, faculty, and members of the Carlisle community through auditions.

In the field of serious music, students may join the College Choir, the Dickinson Collegium for Early Music, the Symphonic Band, or the 70 member College-Community Orchestra. In the field of popular music, Dickinson offers the Jazz Ensemble. Cocurricular instruction in jazz improvisation and arranging is offered as well. The music department offers extensive opportunities to study and perform chamber music in the Woodwind Quintet, Brass Ensemble, String Ensemble, and Guitar Ensemble. Once each month during the academic year, the music department presents a Noonday Concert in the Rubendall Recital Hall, drawing upon musicians from all these activities.

#### Drama

The cocurricular program in drama provides students with the opportunity to experience the excitement and involvement of theatrical production in cooperation with the dramatic arts department. Characterized by energetic commitment, students active in cocurricular drama are a mix of those who are majoring in dramatic arts and those who are primarily interested in participating in the many aspects of production.

Faculty in the Department of Dramatic Arts and the designers and technical director for the Mermaid Players oversee productions and provide instructional support for the program. The student theatrical organization for the program is the Mermaid Players. Each year students who have been active in the productions are tapped for membership in the Players.



The program balances a commitment to provide enjoyable and intense growth experiences to the most diverse possible range of dedicated student participants with a desire to stimulate the minds and spirits of our audience with excellent productions. Last year, the Players and the department challenged and entertained the campus community with Feydeau's French farce, A Flea in her Ear; Tina Howe's Coastal Disturbances; and Shakespeare's The Winter's Tale. In addition to major productions, each year the program includes the Freshman Plays, one-acts with freshman casts directed by upperclass students, and the experimental Lab Shows, also directed by students. Open auditions are held before each production.

#### Dance

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The Dance Theatre Group is a cocurricular organization, with instructional support and direction provided by a faculty member under the auspices of the dramatic arts department. The DTG provides students with opportunities to choreograph their own works and to perform in the dances of other students, faculty, and invited choreographers. The group and the department produce concerts of dances in a range of styles, including modern, ballet, jazz, and dance-drama. Students with varying degrees of skill participate in these

concerts which are open to any student by audition. In addition to formal concerts, the group sponsors master classes, residencies, informal concerts, field trips, and performances by visiting artists and by student performing groups from neighboring institutions.

Curricular instruction in dance techniques (modern, ballet, jazz), movement fundamentals, and composition, as well as in dance theory and history, is offered through the dramatic arts department. Some technique classes are also available for physical education credit. Students participating in the Dance Theatre Group are encouraged to increase their skills and broaden their knowledge of dance by taking these courses. For further information on the dance curriculum, refer to dramatic arts course offerings on page 59.

Students interested in classical ballet may also take advantage of the Central Pennsylvania Youth Ballet, an established regional ballet company and school with a reputation for high-quality instruction, located a mile from campus. Experienced students may be invited to join CPYB, which presents performances throughout Pennsylvania and surrounding states. The CPYB and the College cooperate in offering a summer program of ballet instruction for five weeks in June and July.

### Language Houses and Clubs

In the belief that integrative education is essential to the liberal arts experience, foreign language departments provide various opportunities for Dickinson students to enhance their study of a foreign language and culture. Involvement in the cocurricular language program is an effective and valuable way for faculty and students to enjoy exchanges outside the classroom and adds an important and positive dimension to the Dickinson educational experience.

The Departments of French and Italian, German, Russian, and Spanish and Portuguese sponsor language houses in which interested students may apply to live. The house residents speak the language of the house as well as participating in numerous activities sponsored for the College community by the language house and respective language club. A foreign student assistant is in residence and oversees many of the activities in the French, German, Spanish, and Italian houses, thus helping those who plan study abroad to prepare for that experience and offering those who have studied abroad the opportunity to renew and amplify their experiences. Language clubs and houses, in cooperation with language departments, sponsor lecture series, films, concerts, art shows, dinners, and parties to which all who are interested in the language and culture are welcome.

The *Maison Française* has provided students with an exclusively French-speaking living environment since 1974. Social and cultural activities focus on France and other Francophone countries. Annual highlights include holiday dinners, *causeries*, and guest lectures. Programs from France and Québec can be seen via cable in the cozy living room. Video evenings are held weekly.

The German House provides students living space where they share their interest in the German language and culture and where the language can be practiced at all times. Students have the opportunity to be actively involved in social and cultural activities such as the production of the German radio show, the viewings of German films, lectures by guest speakers, and many informal gatherings.

The Casa Italiana provides a small group of students the opportunity to become involved in the planning and enjoyment of various social and cultural activities such as lectures, traditional Italian meals, slide shows, and film programs. Students also have

the opportunity to see daily live Italian television broadcasts.

The Casa Hispánica provides a unique, Spanish-speaking living environment for students who wish to practice and improve their language skills. In conjunction with the Spanish Club, and assisted by the two assistants from the University of Málaga (Spain) who live in the house, students organize frequent programs centered on topics related to Hispanic cultures. (In recent years, film series, guest lectures, a paella dinner, and an annual student theater production have been highlights.) The Department of Spanish and Portuguese also encourages student involvement in the annual Latin American Studies symposium, devoted to the study of contemporary sociopolitical issues or to a particular literary figure or topic.

The Russian House provides a small group of students the opportunity to live with people with whom they share a common language and interests. Every semester at least one exchange student from the former U.S.S.R. is in residence providing students with opportunities to practice and improve their language skills with native speakers. The Russian House serves as the center of Russian cultural activities on campus. Together with the Russian Club, the House sponsors lectures, concerts, parties, teas and special events, and a satellite hook-up enables residents to watch live Russian television broadcasts.

### Student Media

Dickinson College provides a number of opportunities for students to gain media experience including a student newspaper, the yearbook, a literary review, and radio station.

The student paper, *The Dickinsonian*, was founded in 1872 and is published throughout the academic year by students of Dickinson College. Approximately 2,000 copies are printed biweekly for free distribution on campus and extensive mailing abroad. A student newspaper staff participates in the publication of each issue under the guidance of a democratically-elected editorial board. Editorial policy and subject matter of *The Dickinsonian* are largely determined by this board. Student and faculty contributions in the form of letters, articles, or opinion statements are always encouraged.

The Dickinson Review, a literary magazine, is published by the Belles Lettres Society. Founded in 1786,

#### **Student Clubs and Activities**

(others are listed under arts: music and drama, athletics and recreational sports, honor societies, and Greek-letter social organizations)

African American Society

Allies

Alpha Lambda Delta

Alpha Phi Omega Service Society

Anthropology Club

Apotheosis (student works publication)

Arts House

A.S.I.A. (Asian Social Interest Association)
BACCHUS (Boosting Alcohol Consciousness
Concerning the Health of University Students)

Best Buddies

Big/Little Brother/Sister Program Campus Activities Board

Carlisle Tutoring Program

Catholic Campus Ministry (Newman Club)

Cheerleaders Chemistry Club Circle K

College Bowl Team College Democrats College Republicans

Computer Science/Math Society

Concert Committee

D-Club

Dance Theatre Group Delta Sigma Phi

Dickinson Christian Fellowship Dickinson College Handbell Choir

Dickinson Collegium

Dickinson Investment Alliance Dickinson Review (literary magazine) The Dickinsonian (student newspaper)

Dr. Who Appreciation Society

Earth Now!

**Episcopal Campus Ministry** 

Equality House Equestrian Club Fencing Club Fine Arts Society French Club

Freshman Class Committee Future Teachers Association

Geology Club German Club Habitat for Humanity

Hillel

Host-Hostess Program Ice Hockey Club Interfraternity Council Italian Club

Junior Class Committee Latin American Club

Latin American Club
L.E.A.R.N.
Martial Arts Club
Metzger/Conway Series
Microcosm (yearbook)
Model U.N. Club
Multicultural Club

Nontraditional Students Organization

One-to-One

Orientation Committee

Outing Club

Panhellenic Council
Peace Action Network
Poetry Reading Club
Political Economy Club
Pre-Health Society
Psychology Association
Public Affairs Symposium

ROTC

Russian Club

Senior Class Committee Sexuality Resource Group Sign Language Club

Ski Club

Society for Law and Justice Sophomore Class Committee

Spanish Club Special Kids

Speech and Debate Team Sportsman Club Springfest Committee

Student Alumni Council/Devil's Advocates Student Health Advisory Committee

Student Senate

Students for Animal Rights Students for a Free Tibet

Treehouse (Center for Sustainable Living)

Ultimate Disc Club

Union Philosophical Society WDCV (student radio station)

Whistling in the Dark Women's Center

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the Belles Lettres Society is one of the three original literary societies on campus. The entirely student-designed and published yearbook, *The Microcosm*, provides students with additional outlets for publishing their writing and photographs.

The College radio station, WDCV-FM (88.3), broadcasts daily from 6 a.m. to 2 a.m. in a radius of 20-24 miles. Information and entertainment programming is staffed and managed by students.

### Student Activities

Dickinson students participate in a wide range of activities in which they have responsibility for funding, organizing, and implementing. As initiators, officers, chairpersons, and committee members of clubs, societies, and organizations, students develop and exercise interpersonal and organizational skills while creating their own recreation and entertainment. The student activities office and Leadership Development Center provide resources and support for student involvement.

The Student Senate is a representative body elected annually from among all campus residences and stu-

dents living off campus. The senate is responsible for allocating the student activities fee fund to student organizations. The officers and senate committee members serve as liaisons with the administration and faculty and as representatives of the student body on all-college committees.

The Student Senate funds a number of student groups to provide a wide variety of social, cultural, recreational, and educational programs. The concert committee brings popular performers to the campus while the cultural affairs committee sponsors performances by artists in the field of dance, theatre, and music. Several of these programs have artists in residence who conduct workshops and discussions in which students participate.

In addition to the performances provided by the cocurricular program, student organizations also present plays, musicals, and dances. These groups encourage participation by anyone willing to contribute time and energy. Tryouts are open for all productions, and there is regular recruitment for production crews.

The Campus Activities Board plans programs for college-wide participation. Annually they bring to campus comedians, coffeehouse musicians, bands, a

film series, and novelty artists such as: hypnotists, magicians, and jugglers. Other annual events on the College calendar include Parents' Weekend, Siblings' Weekend, Springfest, and a variety of concerts, dances, games, contests, and barbecues. On any given weekend, late-night entertainment can be found in Union Station, the Depot located next to the Kline Life/Sports Learning Center, or the Holland Union Building.

Numerous student clubs and societies support the common interests and activities of their members and provide seminars, speakers, tournaments, trips, and picnics for the entire campus community. Bus trips to Baltimore, Washington, D.C., and Philadelphia are scheduled during the year and often include performances and visits to museums. Trips to other colleges for cultural events, speakers and concerts are occasionally sponsored.

#### Honor Societies

The Pennsylvania Alpha chapter of Phi Beta Kappa was established at Dickinson College on April 13, 1887. Election to membership is the highest academic honor available to a Dickinson student. To be considered, a student must first satisfy specific criteria (GPA, total number of courses, number of Dickinson graded courses) set for each of the three elections held annually. For each class, the number of students considered does not exceed 10 percent of the total number graduating in the class. Student members are elected primarily on the basis of academic achievement, broad cultural interests, and good character.

Other honorary societies are as follows: Alpha Omicron Delta, athletics; Alpha Psi Omega, drama; Eta Sigma Phi, classics; Upsilon Pi Epsilon, computer science; Phi Alpha Theta, history; Pi Mu Epsilon, mathematics. Psi Chi, psychology; Sigma Delta Pi, Spanish; and Sigma Pi Sigma, physics.

Alpha Lambda Delta, chartered at Dickinson in 1989, is a national academic honor society for students who achieve well academically during their freshman year in college. Omicron Delta Kappa, established at Dickinson in 1927, is a national leadership society for juniors and seniors who rank in the top third of their class and excel in leadership. Wheel and Chain, known as the Blue Hats, and Raven's Claw, known as the White Hats, are social recognition societies for senior women and men.



### Greek-Letter Social Organizations

Approximately 35 percent of Dickinson men belong to nine national Greek-letter social fraternities which have chapters at Dickinson: Beta Theta Pi, Delta Sigma Phi, Kappa Sigma, Phi Delta Theta, Phi Kappa Sigma, Phi Kappa Psi, Sigma Alpha Epsilon, Sigma Chi, and Theta Chi; and one local fraternity, Phi Epsilon Pi.

Four national sororities have chapters at Dickinson: Delta Delta Delta, Pi Beta Phi, Kappa Kappa Gamma, and Kappa Alpha Theta. There is one local sorority, Delta Nu. Approximately 35 percent of Dickinson women are affiliated with sororities.

Fraternities and sororities are responsible to the Interfraternity Council and the Panhellenic Council respectively, and to the faculty.

### Recreational Sports and Intercollegiate Athletics

### Intercollegiate Athletics

The intercollegiate athletic program at Dickinson offers experienced coaching, outstanding training/competition facilities, and athletic competition at the Division III level of the NCAA for both men and women. The College is a member of the Centennial Conference and Eastern Collegiate Athletic Conference. Competition in all of these conferences allows Dickinson athletes to compete against some of the best teams and individual athletes in the nation at the Division III level.

The program includes 11 intercollegiate sports for men and 11 for women, many of which offer junior varsity opportunities as well as varsity competition.

For men: For women:
Football Field Hockey
Soccer Soccer
Cross Country Cross Country
Basketball Basketball
Swimming Swimming

Indoor Track and Field
Golf
Volleyball
Baseball
Lacrosse
Track and Field
Tennis
Indoor Track and Field
Volleyball
Lacrosse
Lacrosse
Track and Field
Tennis
Tennis

#### Recreational Sports

The hallmark of recreational sports at Dickinson is participation. The program provides facilities, equipment, and activities to meet the diverse needs and interests of the entire College community.

Recreational sports include three program areas: intramurals, sport clubs, and special programs. Within these areas are opportunities for competition in team, dual, and individual sports for men and women; practice, instruction, and competition in common interest group activity; and nontraditional self-paced activities. The program is flexible; activities and format are

based upon the interests of the College community and availability of facilities.

### Sport Clubs

Equestrian Ski Racing
Fencing Squash
Ice Hockey Volleyball
Outing Wrestling
Sailing

#### Truly Living Program

Dickinson's Truly Living Program promotes health and life style enhancement for all members of the College community. Cosponsored by the Department of Physical Education and the Office of Educational Services, this approach to "wellness" provides continuing programs on such topics as stress management, physical fitness, nutrition, smoking cessation, and alcohol awareness.

#### **Facilities**

Dickinson's physical activity facilities are among the finest in the country for a iberal arts college of its size. The College's indoor sports area is the magnificent Kline Life/Sports Learning Center. The 38,600-square-foot field house contains a competition basketball court; multi-purpose practice courts for tennis, basketball, volleyball, and badminton; space for indoor golf, baseball; and a four-lane, 200-meter track. An eight-lane pool with a separate diving well and seating for more than 300 compose the facilities aquatics center. Squash and racquetball courts, a dance studio, a strength-training facility, a sports medicine center, a seminar room, offices, spacious lobby, and landscaped patio complete the Kline Center.

Dickinson's open recreational area includes field space for softball, touch football, soccer, and golf. Additional field space is available for intercollegiate and some recreational sports programs at the College's Biddle Field and Dickinson Park. These areas include space for football, soccer, baseball, field hockey, softball, and lacrosse. In addition to the sports fields, this area has a large locker room facility for men and women, sports medicine center, and strength-training facility. The intercollegiate football playing field is the hub of the Biddle Field area and is designed to accommodate 5,000 spectators.

## Cultural Affairs

A wide range of cultural affairs programs at Dickinson presents many occasions for the celebration of intellect and talent in all disciplines. These lectures, performances, films, exhibits, and symposia demonstrate the value of the liberal arts while furthering educational experience. These programs are sponsored by campus organizations, student committees, academic departments, educational services and student affairs. Students are actively involved in the planning and presentation of all cultural events.

#### Common Hour

The Common Hour was established as a pause in the weekly schedule when the Dickinson community can gather to discuss topics of interest to the entire community and enjoy programs that enrich our intellectual and cultural lives. A committee of faculty and students oversees the scheduling of programs which range from concerts to discussion of topics of immediate importance locally and internationally. Each Wednesday noon throughout both semesters, the programs are followed by a buffet lunch and the opportunity for informal conversation among students, faculty, and administrators.

### Annual Symposia and Celebrations

The Joseph Priestley Celebration Each year the Priestley Celebration brings to campus a distinguished scientist to be honored for discoveries which contribute to the welfare of mankind. The award is made in memory of Joseph Priestley, discoverer of oxygen. During the celebration, the College's collection of Priestlev apparatus and memorabilia is displayed. The recipient is given an honorarium and a ceramic medallion struck from an original 1779 mold by Josiah Wedgwood which bears a likeness of Priestley derived from a pen-and-ink drawing by John Flaxman. The president of the College selects the award recipient from a slate of nominees submitted by the Science Executive Committee, which solicits these nominations from science faculty, former Priestley Award recipients, and others associated with the award since it was established in 1952. Recipients of the Priestley Award are as follows:

- Sir Hugh Stott Taylor, for research and teach-1952 ing in physical chemistry.
- 1953 Paul R. Burkholder, for the discovery of chloromycetin.
- Karl T. Compton, for peacetime use of atomic 1954 energy.
- 1955 Harold C. Urey, for the discovery of deuterium. Nobel Laureate in Chemistry 1934.
- Detley W. Bronk, for distinguished service to 1956 mankind through biochemistry.
- 1957 Edward Teller, for distinguished work in nuclear physics.
- 1958 George Bogdan Kistiakowski, for work in chemical kinetics and thermodynamics.
- Willard Frank Libby, for distinguished con-1959 tributions to the development of carbon dating. Nobel Laureate in Chemistry 1960.
- 1960 Glenn T. Seaborg, for distinguished contributions through nuclear chemistry. Nobel Laureate in Chemistry 1951.
- Maurice Ewing, for distinguished contribu-1961 tions in the fields of oceanography, climatology, and geothermal measurements.
- Robert W. Woodward, for the synthesis of 1962 organic molecules. Nobel Laureate in Chemistry 1965.
- 1963 Kenneth S. Pitzer, for work in theoretical quantum chemistry.
- 1964 Isador I. Rabi, for work with quantum mechanics and molecular beams. Nobel Laureate in Physics 1944.
- Joel H. Hildebrand, for research in the fields 1965 of solubility and the structure of liquids.
- Charles H. Townes, for work in microwave 1966 spectroscopy and masers. Nobel Laureate in Physics 1964.
- George W. Beadle, for work in cytology and 1967 genetics. Nobel Laureate in Medicine 1958.
- Marshall W. Nirenberg, for the discovery of 1968 the genetic code.
- 1969 Linus C. Pauling, for research on the nature of chemical bonding. Nobel Laureate in Chemistry 1954. Nobel Peace Prize 1962.
- 1970 George Wald, for distinguished contributions to the field of physiology of vision and biochemical evolution. Nobel Laureate in Medicine 1967.
- 1971 Margaret Mead, for distinguished contributions to the field of anthropology.



- 1972 George C. Pimentel, for work in infrared spectroscopy and molecular structure.
- 1973 Philip H. Abelson, for geochemical studies.
- 1974 Henry Eyring, for his contributions to theoretical chemistry, the development of absolute reaction rate theory.
- 1975 Carl Sagan, for his contributions to the exploration of the universe through radioastronomy.
- 1976 John G. Kemeny, for the development of BASIC computer language.
- 1977 W. Frank Blair, for environmental studies and ecology.
- 1978 J. Tuzo Wilson, for distinguished contributions in the development of plate tectonics.
- 1979 Melvin Calvin, for work in the chemistry of photosynthesis. Nobel Laureate in Chemistry 1961.
- 1980 Philip Morrison, for radioastronomy studies.
- 1981 Donald Knuth, for his work on computer programming and the design of computerized typography.
- 1982 Peter H. Raven, for his work in systematic botany and biogeography.
- 1983 Stephen Jay Gould, for his contribution to the fields of paleontology, evolutionary biology, and the history of science.

- 1984 Hubert M. Alyea, for his contributions to chemical education.
- 1985 Harold P. Furth, for his contributions to plasma physics.
- 1986 Roald Hoffmann, for his contributions to applied theoretical chemistry. Nobel Laureate in Chemistry 1981
- 1987 Thomas F. Banchoff, for his contributions to the understanding of four dimensional manifolds through computer graphics.
- 1988 Francis H.C. Crick, for his pioneering contributions to the field of molecular biology.

  Nobel Laureate in Physiology or Medicine 1962.
- 1989 Arno A. Penzias, for his contributions in the field of radio astronomy. Nobel Laureate in Physics 1978.
- 1990 Wallace S. Broecker, for distinguished contributions to the field of geochemistry.
- 1991 Harry B. Gray, for his contributions to bioinorganic chemistry and inorganic photochemistry.
- 1992 Solomon H. Snyder, for distinguished contributions to the field of neuroscience.
- 1993 George Masters Woodwell, for distinguished contributions to global ecology.

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1994 Gerald Holton, for distinguished contributions to the welfare of mankind through the field of the history of science.

1995 Marvin Minsky, for distinguished contributions in the field of artificial intelligence.

The Public Affairs Symposium Each year, the Public Affairs Symposium brings to campus distinguished figures from government, business, and educational fields to discuss with members of the College a topic of broad public interest. The topic is selected from among proposals submitted by students and faculty. The four-day symposium features debates, discussions, films, and other presentations exploring many aspects of the subject matter of the symposium. The Poitras/Gleim lecture, endowed by a gift from Ted and Kay Gleim Poitras, is held annually in conjunction with the symposium and provides a forum to explore and promote cross-disciplinary thought and communication. 1996 marked the 33rd year for these student-planned symposia. This year's topic, "Equality in America," featured The Honorable L. Douglas Wilder, former governor of Virginia and the first elected African-American governor in U. S. history, as the keynote speaker. Governor Wilder discussed issues of equality coupled with his life experiences in public service. The Poitras/Gleim lecturer was Kareem Abdul-Jabbar, one of the most recognizable and influential athletes in the world, who shared his personal thoughts on how racial and religious equality have shaped his life. The 1995 symposium commemorated the 50th anniversary of the founding of the United Nations and featured keynote speaker Yuli Vorontsov, the Russian Ambassador to the U.S. and former United Nations' representative from the U.S.S.R. The Poitras/Gleim lecture was presented by longtime human rights activist Mike Farrell, best known for his television role as B. I. Hunnicutt on M.A.S.H. The 1994 symposium looked at the media and featured broadcast journalist Daniel Schorr as the keynote speaker. The Poitras/Gleim lecturer was Alvin Poussaint, author, educator, and respected social critic who is professor of psychiatry at Harvard Medical School. The 1993 symposium looked at violence in America and featured William Sloane Coffin, former Yale University chaplain and activist in both the civil rights movement and the struggle to end U.S. involvement in the Vietnam War, as the keynote speaker. The Poitras/Gleim lecturer in 1993 was academy-award recipient Jack Palance who discussed violence in films.

The Dickinson College Arts Award The College's Arts Award honors an individual or group who has made an outstanding contribution to the creative or performing arts. Each recipient spends several days in residence at the College sharing talents and ideas with the College community.

The Arts Award was initiated by the Dickinson faculty and endowed in 1959 by gifts from members of the board of trustees in honor of William W. Edel, president of the College from 1946 to 1959. The recipient of the award is given a Wedgwood medallion bearing the likeness of President Edel based upon a sculpture created by Nancy Dryfoos, distinguished American sculptor. The medallion was cast for Dickinson College by the Wedgwood Potteries of Baralston, England. In addition to the medallion, the awardee receives an honorarium. Recipients of the Dickinson College Arts Award are as follows:

Robert Frost, 1958-59, Poetry Eero Saarinen, 1959-1960, Architecture Judith Anderson, 1960-61, Theatre Leonard Baskin, 1963-64, Graphic Arts Walter Piston, 1965-66, Music W. H. Auden, 1967-68, Poetry John Cage, 1969-70, Music The Philadelphia Orchestra, 1972-73, Music Mauricio Lasansky, 1974-75, Printmaking Zelda Fichandler, 1976-77, Drama John Barth, 1980-81, Literature Toshiko Takaezu, 1982-83, Ceramics Thomas Binkley, 1982-83, Music Pennsylvania Ballet, 1983-84, Dance David Mamet, 1984-85, Drama Robert Stone, 1986-87, Literature Tommy Flanagan, 1988-89, Music Horton Foote, 1989-90, Cinema Leon Golub, 1991-92, Painting Seamus Heaney, 1992-93, Poetry Twyla Tharp, 1995-96, Dance

Multicultural Events The African American Society, Asian House, the Multicultural House/Club, the Asian Social Interest Association (A.S.I.A.), and the Latin American Club, in conjunction with the multicultural affairs office, sponsor events and programs presenting artists, performers, and lecturers representing a number of different cultures. In the spring of 1996, Black History Month, celebrated with the theme "Political Games" and Black Progress," examined affirmative

action issues. The month featured a scholarly debate on affirmative action between Dinesh D'Souza and Christopher Edley, Jr.; a concert by Women of the Calabash; and a lecture by noted law professor Lani Guinier. In addition to presenting this major annual program, these organizations contribute to programs such as coffee houses, and the joint sponsorship of Common Hours and special series.

# Special Lectures and Scholars in Residence

Each year distinguished public figures and outstanding scholars from American and foreign universities present lectures on campus. Some of these international visitors come as scholars-in-residence for week-long, semester-long, or year-long periods of time. All these people enrich the intellectual offerings of the College and allow students and faculty to encounter new ideas and different opinions. Academic departments and student groups frequently sponsor lectures and small-group discussions which encourage the exploration of issues beyond the classroom. Special lecture topics range from discussion of current political, social, and economic issues to consideration of new scholarly developments within academic disciplines. During each term of summer school the College sponsors a Chautauqua Series of concerts, recitals, films and lecture-demonstrations on Monday and Wednesday evenings.

The Morgan Lectureship Endowed by the board of trustees in 1929, in grateful appreciation for the distinguished service of James Henry Morgan of the Class of 1878, professor of Greek, dean, and president of the College, the Morgan Lectureship is used by the president of the College "for the procurement of one or more special lectures annually upon such subject or subjects as he may deem wise...." The lectureship brings to campus a scholar in residence for three to five days to meet informally with individuals and class groups, and to deliver the Morgan lectures on topics in the social sciences and humanities. Recent scholars have been Jorge Luis Borges, William Jordan, Fredric Jameson, Jonathan Spence, Michael Walzer, Barbara Stoler Miller, and James Rosenau. The most recent Morgan lecturer was Paul Fussell, author of The Great War in Modern Memory and Wartime. The topic for his residency was "Violence and Literature" and he lectured on "The Poetry of Three Wars."

The Pflaum Lectures in History are supported by income from a fund contributed by students and friends of the late Professor John C. Pflaum in appreciation of his effective teaching. The lectures bring to campus scholars who, like Professor Pflaum, are particularly successful in oral presentation of historical topics. Professor Noble E. Cunningham, Jr., Professor of History at the University of Missouri/Columbia, presented the 1993 Pflaum lecture on "Thomas Jefferson After 250 Years." The 1994 lecture was presented by Clifford McClain Foust, Professor of History at the University of Maryland, who spoke on "The Drug of Choice in the 18th Century." In 1995 the Pflaum Lecturer was Raymond C. Smock, former Historian of the U.S. House of Representatives; his topic was "History and How We Use It."

The Boyd Lee Spahr Lectures in Americana were established in 1947 in recognition of the importance of Dickinson College in the history of American culture. It is named in honor of Boyd Lee Spahr, Class of 1900, and President of the Board of Trustees 1931-62, in appreciation of his interest in the Dickinson College library and of his contributions to its historical collections. The most recent lecture presented was "A Greed for Letters: the Education of Slaves in the United States" by Richard C. Morris.

The Glover Memorial Lectures are presented in alternate years. This lectureship in science was established in 1958 in memory of John Glover of Newcastle-upon-Tyne, England, the inventor of the Glover Tower, and in memory of his son and grandson, Henry and Lester Glover, by the late Dr. John D. Yeagley and Mrs. Yeagley of York, Pennsylvania. Recent Glover Lectures include Edwin Taylor's talk on "Star Trek Visuals and Reality," Edward Redish's "From Here to the Future: How the Computer is Changing College Teaching," Peter Brancazio's "Sports on the Moon," Clint Sprott on "The New Science of Chaos," and Dr. Dorrit Hoffleit's presentation on "A Century of Women in Astronomy."

The Rabinowitz Program was created by Wilbur M. Rabinowitz, Class of 1940 and a trustee of the College, to enable students and faculty to benefit from encounters with articulate and knowledgeable spokespersons whose careers are or have been in business or government. Individuals who have distinguished themselves in the corporate world or government are invited to

visit the Dickinson campus as participants in one of the two components of the program: the Benjamin Rush Award Ceremony or the Executive-in-Residence Program.

The Benjamin Rush Award Ceremony recognizes outstanding achievement by a member of the business or government community. The individual accepting the award presents a public lecture addressing the relationship of a liberal arts education to the business or government world. Opportunities for members of the College community to converse and discuss issues with the award recipient occur while the recipient is on the campus.

The recipient of the award is presented with an honorarium and with a bronze medal which bears the likeness of Benjamin Rush, the prominent colonial Philadelphia physician who was a key founder of the College and a signer of the Declaration of Independence. The first Benjamin Rush Award was presented in 1985 to the board chairman and chief executive officer of CBS. Recipients since then have included three other corporate executives, a former United States Commissioner of Labor Statistics, and the Minister of Trade, Industry and Energy of the Republic of Korea. In 1995, the most recent recipient, Alice M. Rivlin, Director of the White House Office of Management and Budget, spoke on "Politics and the Economic Future."

The Executive-in-Residence Program brings to campus, for residencies of three to five days, individuals who have been identified as strong contributors to current developments in the business world. These executives participate in classes and less formal gatherings which permit them to engage in discussions of significant issues facing business leaders.

The first Executive-in-Residence was J. Bruce McKinney, Class of 1959, trustee of the College, and chairman and chief executive officer of the Hershey Entertainment and Resort Company.

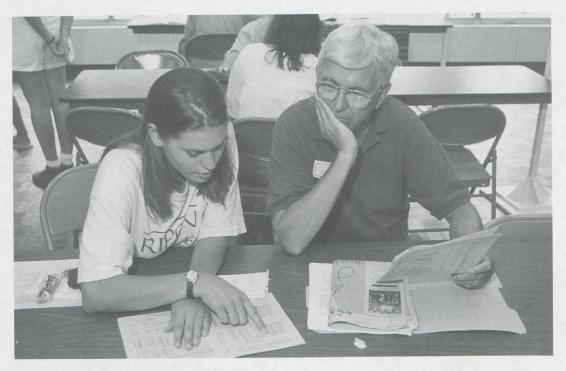
The Donald W. Flaherty Lecture in Asian Studies is supported by a fund established by students, colleagues, and friends of Professor Flaherty, a pioneer in the development of Asian studies at Dickinson. The lectureship brings to campus scholars and speakers who reflect Professor Flaherty's lifelong interest in all aspects of Asian history, culture, and politics. Since the inaugural lecture in 1987-88, prominent Asianists have spoken on topics ranging from "Reflections on the Nature of Japanese Society" to "The Rise of the Chinese Secret Service." The 1995-96 Flaherty Lecture,

entitled "The Making of Multicultural America: Women and the Chinese and Irish Migrations," was delivered by Professor Ronald Takaki of the University of California, Berkeley.

# Religious Affairs

From its founding, Dickinson College has encouraged respect for spiritual and moral values and practices. The College treasures its religious diversity and the richness this diversity brings. In response to a heritage that recognizes freedom of worship, no student is ever denied admission to the College because of sect or creed. Students are encouraged to examine their own and others' religious heritages through courses in the Department of Religion and through programs sponsored by the program coordinator for religious affairs. An ecumenical Christian Chapel service, ecumenical midweek study opportunities, Roman Catholic Mass, and Jewish Shabbat services are held weekly. Special holy days of major faiths are marked by appropriate worship services. An All-College Christmas candlelight service is a highlight of the season for Christian students. Jewish students enjoy High Holy Day services on campus as well as the traditional Passover Seder. An interfaith chapel on the ground floor of Old West, Durbin Oratory, serves as a place for meditation or small worship services, such as Lenten Vespers.

Students are welcome to stop by the Leadership Development Center to meet with the program coordinator to discuss services, programs, and other religious needs.



## Advising

#### Academic Program Advising

Entering students are assigned to academic advisers who are usually members of the faculty or academic professionals. Normally students continue with those advisers until they are ready to declare a major field of concentration, in the sophomore year or at the beginning of the junior year. When declaring the major, each student requests or is assigned an adviser in the major field. Students are encouraged to seek advice from special advisers for help with planning for professional and graduate study, internships, off-campus study, and career development. Additionally students may discuss academic concerns, planning for majors, and preparations for graduate studies with any member of the faculty. All faculty members maintain office hours when students are welcome to take questions to them and seek their advice on academic matters.

Students are responsible for selecting the courses in which they enroll and for the election of courses which will satisfy the requirements of graduation. Academic advisers help students to be aware of the requirements of the College and for the degree, to identify appropriate courses, to develop educational plans, and to consider necessary choices. Advisers are available throughout the academic year, and students are encouraged to meet with their advisers as frequently as they find it useful. During each pre-registration period students are expected to meet with their academic advisers to review progress and revise plans.

Special Advisers: Consultation with special advisers is recommended and sometimes required when students plan specific careers or wish to participate in specific programs. Advice about the opportunities for studying off campus may be obtained from the Office of Off-Campus Study (see pages 178 and 184). The College roster identifies faculty directors and advisers by specific off-campus programs. Students seeking to undertake internships, on or off campus, need to seek advice in the Internship Office (see page 176).

Counselors: Academic concerns are often intertwined with personal development. Licensed and certified professionals as well as peer counselors serve students through an extensive counseling network. Active referral and cooperation within the counseling and

Dickinson College The Community 209

advising network encourages students to seek appropriate guidance and support throughout their college careers.

Class deans: A student who has questions and would like to consult with someone other than an academic adviser is encouraged to speak with his or her class dean. A student considering taking a leave of absence or withdrawing from the College should discuss options with the class dean. Information on how to contact a class dean is available from the Student Services Office.

# Graduate and Professional School Advising

In addition to discussions with academic advisers, to find out about career options, academic and employment options, students can seek help from the Preprofessional Advisers, the office of Graduate and Professional Studies, and the Career Center.

The Preprofessional Advisers: These advisers assist students in the identification of the requirements for acceptance to the professional graduate programs, linkage programs, the binary engineering program, and the teacher certification program. They provide advice about general preparation and the process for application to graduate and professional schools. Students planning for careers in law, the health services, journalism, business, engineering, and teaching need to contact the preprofessional advisers in those fields early in their undergraduate careers. The pre-professional advisers are identified in the College roster.

The Office of Graduate and Professional Studies (GAPS): The GAPS office encourages and assists qualified students to enter graduate and professional schools. The GAPS office serves as a coordinating center for student postgraduate studies. It provides information and application forms for competitive graduate examinations (MCAT, DAT, LSAT, GMAT, GRE) and provides on-campus preparation workshops for these examinations. The office also arranges on-campus interviews with representatives of numerous graduate and professional schools and maintains an extensive collection of catalogs for graduate and preprofessional schools. Any student contemplating graduate or professional study may establish a file

with the GAPS office for the purposes of advising and assistance with the application process, including collecting and mailing letters of recommendation. All services of GAPS are available to Dickinson students and alumni on a year-round basis.

Fifty-seven percent of all Dickinson graduates continue with graduate or professional studies: graduate school 30 percent, law school 13 percent, business/management school 10 percent, medical school/health professions 4 percent (Complete information is available from the GAPS office). Generally students planning to continue study at the graduate level need to establish strong academic records and develop analytical and communications skills. Application procedures and requirements vary by field.

**Graduate Schools:** Students intent on graduate study should consult with their academic advisers, department chairpersons, and the GAPS office. Information on graduate fields of study and programs is available in the GAPS office.

Law School: Application for law school is primarily based on excellent preparation as reflected in the student's academic record and demonstrated in the written application and achievement on the LSAT. No particular major is preferred for admission to law school; Dickinson students who have gone on to law school have majored in the humanities, social sciences, and mathematical and natural sciences. The best preparation for success in law school is to develop analytical and communication skills. The prelaw adviser conducts open sessions each year to help students plan for law school application. The GAPS office coordinates its advising with the faculty prelaw adviser and arranges on campus interviews with representatives of law schools.

Business School: The prebusiness adviser and the GAPS office provide guidance in preparing for business and management careers. The GAPS office maintains extensive files on MBA and international management programs, and it provides materials and workshops for the GMAT. Dickinson graduates may qualify for guaranteed admission through linkage agreements with graduate programs in international management at the Monterey School of International Management and the American Graduate School of International Management (Thunderbird), and in accounting at the Rutgers University MBA program in professional accounting. Information about these programs and the specific requirements for admission

to the linkage programs is available in the GAPS office.

Medical School and the Health Professions: Any student interested in any of the health professions should contact the Committee for Health Professions or the GAPS office to be assigned an adviser from the committee. Recommendation to medical schools and other health professional schools is provided by the committee. The committee letter is based on a file of evaluations requested by the student from instructors throughout his or her undergraduate career. It is important that the student establish the advising relationship and the file as early as possible. Medical and health profession programs require courses which must be included in the student's program. Careful planning is necessary. Additionally, students are encouraged to gain research experience through internships at medical schools or in research projects on campus. A hospital rotation program gives qualified junior and senior premedical students an opportunity to work with physicians and professional staff at the Carlisle Hospital. For eleven weeks, each student spends one morning a week in each of several medical, surgical, or laboratory departments. (see also Binary Engineering page 184)

The Career Center: The Career Center provides advice at all stages of exploration and development of career plans. All students are encouraged to utilize the services of the Career Center for advice in planning preparation for career options.

### Career Services

The Career Center provides a full range of career information and assistance to all students. Students are encouraged to visit the Career Center during their freshman year and continue to visit during the next two years to develop an academic and extracurricular program which will give them a strong foundation for their future employment. During their senior year, students will want to visit the Career Center often to take advantage of the assistance with their job search.

The professional staff provides career counseling and assessment, organizes campus-wide workshops and programs, and coordinates job placement activities. In addition to the professional staff, the Career Center employs peer career counselors called career consultants who assist students with the job search process.

Career services available to all students include career counseling, career assessment, resume-writing assistance, videotaped interview training, the alumni career contact file, and use of the career library. Workshops are conducted in freshman residence halls and throughout the campus on such topics as "Summer Jobs," "How to Write a Resume," "What to do with a major in...," and "International Careers." The career library is well stocked with up-to-date career resources and provides students access to career information, job placement literature, and corporate reports.

In addition to the aforementioned services, seniors may participate in the recruiting program which involves over 300 organizations and corporations. As a supplement to the on-campus recruiting program, Dickinson College participates in several career fair consortiums with other liberal arts schools. At the present time, career fairs are held in New York, Washington, Philadelphia, Boston, Atlanta, San Francisco, Chicago, and Harrisburg. Seniors have the opportunity to interview with recruiters from the variety of companies and organizations at these fairs.

### The Field Experience Program

The Career Center, in conjunction with the Clarke Center, coordinates a non-credit field experience program. This program gives students the opportunity to acquire experience in a variety of community settings including businesses, government agencies, and non-profit organizations. Students are encouraged to explore areas of interest as they build the knowledge



and skills which will help them succeed in their chosen careers.

Community volunteer activities such as literacy training, tutoring children and adolescents, visiting nursing homes, and working in a soup kitchen are just some of the many opportunities offered to students through the field experience program. The activities of nationally known volunteer groups such as Habitat for Humanity and Big Brother/Big Sister are coordinated through the program as well.

In addition, students interested in pursuing careers in business, government, or other fields will be matched with local organizations to develop a greater understanding of the knowledge and skills needed in their field of interest. For example, a student interested in politics might work on a local political campaign. A student considering a career in finance would be placed with a local investment firm or bank.

Field Experience placements are based on student interest and students are encouraged to explore different fields and options throughout their four years at Dickinson. The placements are flexible and can last from one day to four years depending on the student and site needs.

# Counseling Services

The Counseling Center is dedicated to the enhancement of healthy personal development of students. Direct and outreach services are offered by a professional and paraprofessional staff. Confidential individual and group counseling sessions are offered to help students with both general developmental issues and with specific personal or interpersonal difficulties. Group counseling is employed effectively for struggles with food, sexual assault and abuse situations, problems related to having an alcoholic parent or dealing with other unhealthy family situations, relationship concerns, and issues related to sexual orientation.

For students in need of medication to assist in emotional or other mental health problems, a board-certified psychiatrist is available for evaluation, prescriptions, and monitoring of medication.

The Peer Contacts are a small group of students carefully trained to provide support, companionship, information, and referrals for students who are victims of sexual assault. The focus of this program is on individual and/or group peer support while helping students learn about other resources available to them.

Assessment, counseling, and referral are provided for students who may be involved with alcohol abuse or other drug use.

In conjunction with the safety and security office and the residential life office, 24-hour services are available for students facing psychological crises. Professional counseling staff members are available for services outside of office hours if the need arises.

Outdoor experiential ventures are provided to student group members seeking to develop their effectiveness or to strengthen working relationships within the group. Consultation and scheduling with counseling service staff are required for arranging the outdoor ventures.

# Student Health Services

Dickinson College provides a medical service for the convenience of its students. The Health Center is staffed by registered nurses, nurse practitioners, and physicians. The services provided at the Health Center include, but are not limited to, primary health care of the ill or injured student, gynecological services, limited laboratory services, administration of allergy injections, self-care center for colds, and referrals to community specialists as needed.

Student health services include the Office of Health Education. The College health educator offers educational programming on various topics important to student health and coordinates a variety of health-related programs for other College departments. Educational programs include such topics as alcohol awareness, sexually transmitted diseases, assertiveness, smoking cessation, CPR, and more. The director of health education works closely with the counseling center and the physical education Truly Living Program.

Carlisle Hospital, the primary health care facility in this area, is within walking distance of the College and is readily available for emergency treatment and for major illnesses. The emergency department is open and staffed 24 hours a day with registered nurses and physicians. This facility is used if needed during the hours that the Health Center is closed. College police provide transportation to and from the hospital for acute problems if necessary.

# Multicultural Affairs

The Office of Multicultural Affairs serves as the chief administrative office within Educational Services responsible for addressing Dickinson's commitment to racial, ethnic, and cultural diversity. The director assists the College in developing multicultural perspectives designed to achieve cultural pluralism and to promote an understanding of the diversity present at Dickinson and around the world. This is accomplished through programming across the campus. The director also advises various ethnic groups and student directed learning communities. A bimonthly newsletter is published by multicultural affairs student assistants and the director.

# Residential Life

Because living on campus provides unique opportunities for student learning and growth, the residential nature of the institution is very important; all students are expected to live on campus. A few students who are married or commute from local homes are treated as exceptions. The College has a variety of housing options ranging from residence halls housing 40 to 200 students to small houses and suites (bedrooms clustered around a living room and bath); the majority of residences are co-ed. Most students live in double, triple, or quad rooms; a few live in single rooms.

All residence halls have resident advisers, upperclass students carefully selected to assist students. RAs play an important role in helping students adjust to the institution and to the demands of college life; they usually live in rooms near those students for whom they are responsible.

Freshman room assignments are the responsibility of the office of residential life. When requested by the faculty instructor, freshmen who are assigned to a particular seminar will be housed together. Upperclass students choose rooms in an order decided by class standing through a lottery system.

Student Directed Learning Communities: Several smaller residence halls and houses are organized in support of special interests. Although the exact number of SDLC's changes from year to year, the follow-

ing are typical. French, German, Italian, Spanish, and Russian Houses are residences for students seeking opportunities to practice speaking a second language. They sponsor traditional celebrations and entertainment based on those cultures. The Asian House offers students the chance to learn more about Asian culture. The Multicultural House adds yet another option for students interested in other cultures and is active in providing campus-wide programs such as Oktoberfest and Latin American fiestas. The House also maintains the Martin Luther King Library as the focus of cultural and social events. The Arts House encourages activities planned for students interested in the arts. Hillel House provides a place for Jewish students to practice living in a faith community. The Center for Sustainable Living provides a live-in laboratory for environmental concerns of students working closely with departmental faculty.

The Equality House encourages students to examine the effects of society's bias against under represented groups. Learning communities are encouraged and students who wish to live together and participate in programming related to a particular theme may apply. Strong faculty or administrator involvement in such endeavors is required. For housing purposes, Greek-letter social organizations are considered student directed learning communities. A College Housing Board composed of faculty, students, and administrators establishes criteria and assigns space as available for groups on a biannual basis.

#### Residence Halls (40 or more residents)

Adams Hall, 1963. Named in honor of Dr. and Mrs. Rolland L. Adams. 187 men and women.

Drayer Hall, 1951. Named in honor of Mr. and Mrs. S. M. Drayer. 178 men and women.

Kisner-Woodward Hall, 1969. Named for Helen Kisner and Hugh B. Woodward. 92 men and women.

Malcolm Hall, 1966. Named in memory of Gilbert Malcolm. 79 men and women.

McKenney Hall, 1973. Named in honor of the McKenney family. 96 men and women in suites of eight.

Morgan Hall, 1955. Named in memory of James Henry Morgan. 200 men and women.

Quadrangle Residence Halls, 1964. Ten residences providing housing for up to 44 students each. (Armstrong, Arwater, Baird, Buchanan, Conway, Cooper, Davidson, Longsdorff, McClintock, Wilson)

Witwer Hall, 1966. Named for the Witwer family. 80 men and women.

#### Residence Halls (fewer than 40 residents)

These include:

Mathews, 27 men and women; Montgomery, 25 men and women; Reed, 23 men and women; Stuart, 36 men and women; seven townhouse residences, eight students each; and 23 smaller houses which accommodate from three to 10 students.

#### **Dining Services**

Resident students participate in a choice of two mandatory board plans (included in the resident fee) and dine cafeteria style. The dining service also provides special holiday meals and monthly theme meal dinners. Additionally, the dining service offers the student board participants other dining options, including dining in the Union Station Snack Bar during dinner, and meal exchange programs for halls, clubs, and special interest groups.

The Union Station Snack Bar operated by the dining service is a full-service snack bar offering a wide variety of foods, beverages, and snacks. Dining Services also operates a coffee bar called the Underground. The Underground features fresh baked pastries, expresso, and coffees.

# Safety and Security Procedures

The Dickinson campus is protected by modern security technology and a private security staff. The College also has a program which educates community members on safety.

In addition, at Dickinson, a booklet on security concerns and emergency procedures prepared by the safety and security office and the Student Handbook which details student life policies are provided to all students soon after they arrive on campus. Both are reviewed with them in detail.

# Residence Hall Security

Four full-time professional staff members supervise a paraprofessional staff of 60 students.

All College housing facilities are locked, requiring use of a key or keycard, 24 hours a day. Visitors, student and nonstudent, may call the persons they are visiting from a telephone intercom system outside most buildings, to gain access.

Windows have locks and some ground floor windows have security screens. All student rooms have individual locks for use by the occupants. During vacation periods, outside door locks are plugged to prevent the use of ordinary keys when the buildings are closed.

Residence hall staff receive training in using the inhouse alarm systems for perimeter doors, and responding to emergencies. Staff members inform residents about the dangers of walking alone at night, and the wisdom of keeping doors locked. Students are encouraged to contact the safety and security office if they believe they see or have seen someone suspicious.

## Notification

Notice is circulated to the entire campus community, through the dean of educational services, in the event of a serious security incident. Notices are placed in college mail boxes and are reported in the student newspaper. All crimes committed at Dickinson College are reported to the Pennsylvania State Police in an annual uniform crime report. A close working relationship with the Carlisle Police Department is

maintained, and relevant information is exchanged routinely.

# Safety and Security Office

Seven full-time uniformed and armed safety and security officers report to Dickinson's director of security. Most are college graduates with a major in criminal justice. A psychological test and physical examination are required of all safety and security officers in addition to the stipulated state police and Federal Bureau of Investigation fingerprint check. All campus police officers must attend the Lethal Weapons Training Course offered by Harrisburg Area Community College under Pennsylvania Act 235. They attend other short police-related courses as they are available. Thirty days on the job are required before officers can work alone.

All safety and security officers give daily reports to the Department of Physical Plant on security-related items after nightly rounds and checks of all campus facilities and grounds. The residential life staff also turns in requests for repairs to locks, doors, and windows, as well as for general maintenance.

Emergencies or suspicious incidents occurring on campus are reported most commonly by telephone. Emergency numbers are posted on all public telephones on the campus.

A summary of major and minor offenses which are known to the Dickinson College Department of Safety and Security during the most recent three-year period is available upon request by currently enrolled students, employees, and candidates who have submitted a formal application for admission to the College. To receive a copy, write to the Admissions Office or Personnel Office, Dickinson College, P.O. Box 1773, Carlisle, PA 17013-2896.



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# References

# Directory 1996-1997

# Board of Trustees

The year of first election to the Board of Trustees appears to the left of each board member's name. Information is correct as of April 1, 1996.

## Officers

Sidney D. Kline, Jr., '54, B.A., LL.B. Chairman
John J. Curley, '60, B.A., M.S. Vice Chairman
M. Charles Seller, '55, B.A., M.A. Secretary
Michael L. Britton, B.A., M.Ed., Ph.D., M.B.A.

Treasurer

Peter J. Balcziunas, B.A. Assistant Secretary Annette Smith Parker, '73, B.A., M.B.A.

Assistant Treasurer

## Members ex officio

- 1987 A. Lee Fritschler, B.A., M.P.A., Ph.D., President of the College, Carlisle, PA
- 1995 Jonathan P. Murray, '84, B.A., Chairman of the Board of Advisors; Associate Vice President for Investments and Sales Manager, Legg Mason, Inc., Baltimore, MD
- 1995 Robert A. Watson III, '58, B.A., *President of the Alumni Council;* Retired Assistant to the President, Montgomery College; Washington, DC
- 1994 Nanci Fox Taylor, '76, B.A., Past President of the Alumni Council; Senior Vice President, Taylor-Fox International, Reston, VA

# **Emeritus Members**

Samuel W. Witwer, Sr., '30, Ph.B., J.D.,
 L.H.D., S.J.D., LL.D., Senior Partner,
 Witwer, Burlage, Poltrock & Giampietro,
 Chicago, IL. Honorary President of the Board

- 1982 Joseph D. Brenner, '39, Ph.B., M.B.A., Retired Chairman of the Board, AMP, Inc.; Carlisle, PA
- 1967 Robert W. Chilton, '38, B.A., Business Consultant, Carlisle, PA
- 1959 John Milton Davidson, '33, B.A., M.Ed., Sales and Management Consultant, O'Haret Co. and C. D. Stewart Associates; Radnor, PA
- 1970; John D. Hopper, '48, B.A., LL.B., J.D.,
- 1980 Retired State Senator, Commonwealth of Pennsylvania; Mechanicsburg, PA
- 1958 William S. Jenkins, '31, Ph.B., LL.B., Chairman of the Advisory Board, First National Bank of Maryland, Cumberland, MD
- 1954 W. Gibbs McKenney, '39, Ph.B., J.D., LL.D., D.H.L., Senior Partner, McKenney, Thomsen & Burke, Baltimore, MD
- 1958 Edward C. Raffensperger, '36, B.S., M.D., Professor of Medicine, Hospital of the University of Pennsylvania, Philadelphia, PA
- 1962 Boyd Lee Spahr, Jr., '32, B.A., LL.B., Retired Senior Partner, Ballard, Spahr, Andrews & Ingersoll, Philadelphia, PA
- J. William Stuart, '32, B.A., Retired Chairman of the Executive Committee, Pfizer, Inc.; Hightstown, NI
- 1974 Daniel J. Terra, B.S., Chairman, Lawter International, Inc.; former Ambassador at Large for Cultural Affairs, U.S. Department of State; Washington DC
- 1975 William S. Thomas, '35, B.A., F.S.A., Retired Executive Vice President, Metropolitan Life Insurance Co.; Mars, PA
- 1948 Robert A. Waidner, '32, B.A., LL.B., Fin.D., Chairman of the Board, Waidner Corp., Towson, MD
- 1966 Harry C. Zug, '34, B.A., M.B.A., Retired Partner, Coopers & Lybrand; Gladwyne, PA
- 1976 Thomas V. Zug, '33, Ph.B., LL.B., Retired Vice President for Trust Administration, Provident National Bank, Philadelphia; Gladwyne, PA

# Life Member

1980 Wilbur M. Rabinowitz, '40, Ph.B., J.D., Retired President, J. Rabinowitz & Sons, Inc.; New York, NY

# Term Expires 1997

- 1981 Robert M. Brasler '58, President and Chief Executive Officer, National Constitution Center, Philadelphia, PA
- 1990 Philip C. Capice, '52, B.A., M.A., Retired President and Chief Executive Officer, Raven's Claw Productions, Inc., Los Angeles, CA
- 1991 H. Chace Davis, Jr., '50, B.A., Managing Director, Chapin, Davis & Co., Inc., Baltimore, MD
- 1992 David M. Ford, '59, B.A., Partner, Ford-Meehan Agency, Connecticut Mutual Life Insurance Co., Beverly Hills, CA
- 1993 \*Louise Hauer Greenberg, '54, B.S., M.A., Ph.D., Vice President, Rudifer & Co., Inc., Carlisle, PA
- 1979 Sidney D. Kline, Jr., '54, B.A., LL.B., Chairman, Stevens & Lee, Reading, PA
- 1983 Byron G. Quann, '61, B.A., Marketing Consultant, Ponte Vedra Beach, FL
- 1985 Rosalyn K. Robinson, '68, B.A., J.D., Attorney at Law, Philadelphia, PA; Former Judge, Philadelphia Court of Common Pleas.
- 1994 Stuart M. Rosen, '62, B.A., LL.B., Partner, Weil, Gotshal & Manges, New York, NY
- 1975 Jack M. Stover, '70, B.A., J.D., Partner, Eckert, Seamans, Cherin & Mellott, Harrisburg, PA
- 1976 Samuel W. Witwer, Jr., '63, B.A., LL.B., Partner, Witwer, Burlage, Poltrock & Giampietro, Chicago, IL
- 1990 Lawrence Zicklin, B.B.A., M.B.A., Managing Partner, Neuberger & Berman, New York, NY

# Term Expires 1998

- 1986 John C. Goodchild, Jr., '67, B.A., M.B.A., President and Chief Executive Officer, The Weightman Group, Philadelphia, PA
- 1990 \*Ann Lemkau Houpt, '59, B.A., M.A., Counselor, Middlesex County College; Summit, NJ
- 1994 Byron R. Koste, '64, B.A., M.B.A., Naples, FL
- 1994 Kenneth R. Marvel, '74, B.A., J.D., President, Fitz and Floyd, Silvestri and Omnibus, Dallas, TX
- 1994 Eleanor Pocius Merrill, '55, B.A., Associate Publisher, *The Washingtonian*, Capital-Gazette Communications, Inc., Washington, DC
- \*Alumni Trustee

- 1990 I. David Paley, '61, B.A., President and Chief-Operating Officer, C.P. Chemicals, Inc., Fort Lee, NI
- 1991 Lawrence J. Schoenberg, B.A., M.B.A., Retired Founder and Chief Executive Officer, AGS Computers, Inc.; Long Boat Key, FL
- 1988 Earl D. Weiner, '60, B.A., LL.B., Partner, Sullivan & Cromwell, New York, NY
- 1971; Emil R. Weiss, '53, B.A., M.B.A., Retired
- 1979 Chairman, Weiss Pollack Capital Management; Glen Ridge, NJ
- 1988 Robert J. Wise, '53, B.A., Retired President, Keypoint Corp., Berwick, PA

# Term Expires 1999

- 1987 Katharine E. Bachman, '75, B.A., J.D., Senior Partner, Hale & Dorr, Boston, MA
- 1993 Carolyn Wherly Cleveland, '60, B.S., Financial Assistant, Greenwich Arts Council, Greenwich, CT
- 1986 Paulette Goerig Katzenbach, '68, B.A., Los Angeles, CA
- 1982 Otto E. Roethenmund, B.A., President, Inter-Nation Capital Management Corp., New York, NY
- 1991 C. Stewart W. Spahr, '69, B.A., Assistant Vice President, Provident National Bank; Newtown Square, PA
- 1995 Paul L. Strickler, '51, B.A., Retired Executive Vice President, Sprint/United Telephone-Eastern, Carlisle PA

# Term Expires 2000

- 1984 Walter E. Beach, '56, B.A., M.A., Director, HELDREF Publications of the Helen Dwight Reid Educational Foundation, Washington, DC
- 1978 Henry D. Clarke, Jr., '55, President, Clarke Ice Cream Co., Vero Beach, FL
- 1978; John J. Curley, '60, B.A., M.S., Chairman of
- 1984 the Board, President and Chief Executive Officer, Gannett Co., Inc., Arlington, VA
- 1993 Sherwood D. Goldberg, '63, B.A., M.A., J.D., Director, Worldwide Associates, Inc., Washington, DC
- 1996 \*R. Lee Holz, '57, B.A., LL.B., Retired Vice President and General Counsel, Aluminum Company of America; Pittsburgh, PA

- 1994 Richard T. Ingram, B.A., M.A., Ed.D., President, Association of Governing Boards of Universities and Colleges, Washington, DC
- 1984 Constance W. Klages, '56, B.A., Executive Vice President, International Management Advisors, Inc., New York, NY
- 1993 W. Scott Peterson, B.A., M.D., Ophtalmologist and Surgeon, OptiCare Eye Health Center, Waterbury, CT
- 1989 Carla Seybrecht Skladany, '61, B.A., Secretary-Treasurer, DuPage Enterprises, Inc.,
  Downers Grove, IL
- 1982 Inge Paul Stafford, '58, B.A., M.A.T., M.A., Ed.D., Licensed Psychologist, Essex Fells, NJ
- 1990 Marc I. Stern, '65, B.A., M.A., J.D., President, TCW Group, Inc., Los Angeles, CA

# Faculty

The year of first appointment to the College appears in parentheses at the end of each individual's title(s). Information is correct as of April 1, 1995.

#### A. Lee Fritschler

President of the College, Lemuel T. Appold Foundation Chair, Professor of Political Science (1987). B.A., Union College, 1959; M.P.A., Syracuse University, 1960; Ph.D., 1965.

#### Lisa A. Rossbacher

Dean of the College, Russell I. Thompson Chair of the Dean of the College, Professor of Geology (1976; 1995). B.A., Dickinson College, 1975; M.A., State University of New York at Binghamton, 1978; M.A., Princeton University, 1979; Ph.D., 1983.

# Faculty Emeriti

The years of first appointment to the College and of retirement appear in parentheses at the end of each individual's title(s). Faculty emeriti are listed according to the highest rank an individual achieved prior to his or her retirement, and then according to the year he or she achieved that rank. When more than one emeritus professor have the same rank at the time of retirement, and achieved that rank on the same date, they are listed according to the year each achieved his or her preceding rank. Information is correct as of April 1, 1996.

#### William W. Edel

President of the College, Emeritus (1946-1959). B.A., Dickinson College, 1915; M.A., 1919; D.D., 1935; S.T.B., Boston University, 1921; L.H.D., Keuka College, 1944; D.D., Hobart College, 1944; LL.D., Gettysburg College, 1949; LL.D., University of Pennsylvania, 1949; H.H.D., Boston University, 1950; J.U.D., Lebanon Valley College, 1956; Fellow International Institute of Arts and Letters, 1959.

#### Wellington A. Parlin

Professor Emeritus of Physics (1930-1955). B.A., Simpson College, 1921; M.S. University of Iowa, 1922; Ph.D., Johns Hopkins University, 1929.

#### Benjamin D. James

Richard V. C. Watkins Professor Emeritus of Psychology and Education (1941-1976); Dean of Students (1962-1967); Director of Admissions (1948-1962). B.A., Dickinson College, 1934; M.A. Bucknell University, 1936; Ph.D., University of Pennsylvania, 1962; LL.D., Dickinson School of Law, 1976.

#### †Milton E. Flower

Robert Blaine Weaver Professor Emeritus of Political Science (1947-1975). B.A., Dickinson College, 1931; M.A., Columbia University, 1938; Ph.D., 1946.

#### Henry L. Yeagley

Joseph Priestley Professor Emeritus of Natural Philosophy, Professor Emeritus of Physics and Astronomy (1958-1969). B.S., Pennsylvania State University, 1925; M.S., 1927; Ph.D., 1934.

#### Joseph H. Schiffman

James Hope Caldwell Professor Emeritus of American Studies; Professor Emeritus of English (1958-1979). B.A., Long Island University, 1937; M.A., Columbia University, 1947; Ph.D., New York University, 1951. Lindback Award for Distinguished Teaching, 1961-62.

#### Howard C. Long

Joseph Priestley Professor Emeritus of Natural Philosophy, Professor Emeritus of Physics (1959-1981). B.A., Northwestern University, 1941; Ph.D., Ohio State University, 1948. Lindback Award for Distinguished Teaching, 1975-76.

#### William R. Bowden

Thomas Beaver Professor Emeritus of English Literature (1948-1979). B.A., Haverford College, 1935; M.A., Duke University, 1937; Ph.D., Yale University, 1948. Lindback Award for Distinguished Teaching, 1974-75.

#### ††Caroline H. Kennedy

Professor Emerita of Modern Languages (1948-1971). B.A., Birmingham-Southern College, 1926; M.A., Alabama University, 1930; Docteur D'Université, Universite Laval, 1942.

#### Paul F. M. Angiolillo

Charles A. Dana Professor Emeritus of Languages and Literatures (1962-1981). B.A., Columbia University,

†Died January 2, 1996 ††Died November 30, 1995 1938; M.A., 1939; Ph.D., 1946; Postdoctoral Studies, University of Geneva, 1946-47; Officer d'Académie, 1956; Officer des Palmes Académiques, 1961. Lindback Award for Distinguished Teaching, 1964-65. Ganoe Award for Inspirational Teaching, 1974-75.

#### Francis W. Warlow

Professor Emeritus of English (1947-1975); Acting Dean of Men (1953-1954). B.A., Johns Hopkins University, 1931; M.A., University of Pennsylvania, 1946; Ph.D., 1959.

#### tttRoger E. Nelson

Professor Emeritus of Mathematics (1949-1971); Dean of the College (1960-1963). B.S., U.S. Naval Academy, 1922; M.S., Dartmouth College, 1946.

#### Ray H. Crist

Professor Emeritus of Chemistry (1963-1971). B.A., Dickinson College, 1920; Sc.D., 1960; M.A., Columbia University, 1922; Ph.D., 1926.

#### ††††Warren J. Gates

Robert Coleman Professor Emeritus of History (1951-1985). B.A., Duke University, 1941; M.A., University of Pennsylvania, 1947; Ph.D., 1951.

#### William B. Jeffries

Charles A. Dana Professor Emeritus of Biology (1959-1994). B.S., University of Pittsburgh, 1949; M.A., University of North Carolina, 1952; Ph.D., 1955. Lindback Award for Distinguished Teaching, 1964-65. Ganoe Award for Inspirational Teaching, 1975-76.

#### Richard H. Wanner

Professor Emeritus of Psychology (1946; 1961-1981); Dean of the College (1968-1969; 1971-1974); Associate Dean of the College (1966-1968); Assistant Dean of the College (1965-1967). B.A., Franklin and Marshall College, 1939; Ed.M., Harvard University, 1940; Ed.D., 1968.

#### Philip N. Lockhart

Asbury J. Clarke Professor Emeritus of Latin, Professor Emeritus of Classical Languages (1963-1990). B.A., University of Pennsylvania, 1950; M.A., University of North Carolina, 1951; Ph.D., Yale University, 1959. Ganoe Award for Inspirational Teaching, 1968-69, 1972-73, 1980-81.

†††Died January 19, 1996 ††††Died July 24, 1995

#### Daniel J. McDonald

Professor Emeritus of Biology (1956-1983). B.S., Siena College, 1950; M.A., Columbia University, 1952; Ph.D., 1955.

#### A. Craig Houston

Professor Emeritus of Economics (1956-1992). B.A., Pennsylvania State University, 1951; Graduate School for English Speaking Students, University of Stockholm, 1952; Ph.D., Pennsylvania State University, 1962.

#### Bruce R. Andrews

Robert Blaine Weaver Professor Emeritus of Political Science (1960-1992). B.A., Syracuse University, 1950; Ph.D., 1961. Lindback Award for Distinguished Teaching, 1991-92.

#### †William H. Wishmeyer

Professor Emeritus of English (1957-1982). B.A., Johns Hopkins University, 1948; M.A., 1949; Ph.D., University of Pennsylvania, 1957.

#### Stephen B. Coslett

Professor Emeritus of Psychology (1960-1993). B.S., University of Pittsburgh, 1953; M.A., University of Denver, 1957; Ph.D., 1960.

#### William W. Vernon

Professor Emeritus of Geology and Anthropology (1957-1991). B.A., University of New Hampshire, 1952; M.S., Lehigh University, 1955; Ph.D., 1964; M.S., University of Pennsylvania, 1984. Lindback Award for Distinguished Teaching, 1966-67.

#### K. Robert Nilsson

Robert Blaine Weaver Professor Emeritus of Political Science (1962-1990). B.A., Temple University, 1951; M.A., Johns Hopkins University, 1957; Ph.D., Columbia University, 1964. Certificate of the Institute on International and Comparative Law, 1974. Lindback Award for Distinguished Teaching, 1963-64.

#### Harry F. Booth

Thomas Bowman Professor Emeritus of Religion (1964-1993). B.A., Harvard College, 1949; S.T.B., Boston University, 1952; Ph.D., 1963. Lindback Award for Distinguished Teaching, 1966-67. Ganoe Award for Inspirational Teaching, 1970-71, 1987-88.

†Died May 3, 1995

#### David F. Brubaker

Professor Emeritus of Drama (1956-1985). B.A., Franklin and Marshall College, 1948. Lindback Award for Distinguished Teaching, 1967-68.

#### George Allan

George Allan Distinguished Professor Emeritus of the Liberal Arts, Professor Emeritus of Philosophy (1963-1996); Dean of the College (1974-1995). B.A., Grinnell College, 1957; M.Div., Union Theological Seminary, 1960; Ph.D., Yale University, 1963; LL.D., Dickinson College, 1995. Lindback Award for Distinguished Teaching, 1968-69.

#### Barbara B. McDonald

Professor Emerita of Biology (1956-1987). B.S., Simmons College, 1948; M.A., Columbia University, 1955; Ph.D., 1957.

#### Peter E. Martin

Professor Emeritus of Mathematics and Computer Science (1965-1989). B.A., Yale University, 1950; M.A., Harvard University, 1951; Ph.D., 1958; Diploma in Comp. Sci., University of Cambridge, 1979.

#### Lee W. Baric

Professor Emeritus of Mathematics (1964-1995). B.S. Dickinson College, 1956; M.S., Lehigh University, 1961; Ph.D., 1966.

#### Gerald C. Roper

Professor Emeritus of Chemistry (1962-1996) A.A.. Boston University, 1953; B.A., 1956; Ph.D., 1966. Ganoe Award for Inspirational Teaching, 1979-80.

#### Daniel R. Bechtel

George Henry and Bertha C. Ketterer Professor Emeritus of Religion (1964-1995). B.A., Franklin and Marshall College, 1954; B.D., Yale University, 1958; Ph.D., Drew University, 1964. Lindback Award for Distinguished Teaching, 1969-70.

#### Paul J. Biebel

Professor Emeritus of Biology (1963-1991). B.S., University of Notre Dame, 1949; M.S., St. Louis University, 1955; Ph.D., Indiana University, 1963.

#### Dennis P. Akin

Professor Emeritus of Fine Arts (1969-1992). B.F.A., University of Kansas, 1956; M.F.A., University of Colorado, 1958. Lindback Award for Distinguished Teaching, 1976-77. Ganoe Award for Inspirational Teaching, 1991-92.

#### John H. Light

Professor Emeritus of Mathematics (1959-1987); Registrar (1966-1969). B.S., Lebanon Valley College, 1948; M.S. in Physics, Pennsylvania State University, 1950; M.S. in Engr. Mech., 1957.

#### Enrique J. Martinez-Vidal

Professor Emeritus of Romance Languages (1965-1996). M.A., Temple University, 1960; Ph.D., University of Pennsylvania, 1970. Dickinson Award for Distinguished Teaching, 1994-95.

#### Ralph L. Slotten

Professor Emeritus of Religion (1966-1988). B.A., Drake University, 1948; B.D., 1951; M.A., University of Chicago, 1958; Ph.D., 1966.

#### Frank R. Hartman

Associate Professor Emeritus of Psychology (1960-1994). B.S., Pennsylvania State University, 1953; M.S., 1955; Ph.D., 1957.

#### Donald R. Seibert

Associate Professor Emeritus of Physical Education (1957-1984). B.S., George Washington University, 1943; M.A., Columbia University, 1950.

#### Yates M. Forbis

Associate Professor Emeritus of Library Resources (1965-1987). B.S., Appalachian State Teachers College, 1951; M.A., 1955; M.S. in L.S., Columbia University, 1960.

#### John L. King

Associate Professor Emeritus of Accounting (1959-1983). B.A., Princeton University, 1948; M.A., University of Denver, 1950. Ganoe Award for Inspirational Teaching, 1971-72; 1982-83.

#### Wilbur J. Gobrecht

Associate Professor Emeritus of Physical Education (1960-1993). B.A., Dickinson College, 1952; M.A. Duke University, 1959.

#### James W. Carson

Associate Professor Emeritus of History (1956-1991). B.S., Miami University, 1948; M.A., 1951.

#### J. Forrest Posey, Jr.

Associate Professor Emeritus of Music (1962-1993). B.M., Hardin-Simmons University, 1951; M.M., University of Texas, 1954; M.A., Harvard University, 1962.

#### William R. Schearer

Associate Professor Emeritus of Chemistry (1968-1992). B.S., Ursinus College, 1957; M.A., Princeton University, 1959; Ph.D., 1963.

#### H. Wade Seaford, Jr.

Associate Professor Emeritus of Anthropology (1961-1989). B.A., Wheaton College, 1946; Graduate Studies, Escuela Nacional de Antropologia e Historia Mexico, 1948-50; M.A., Harvard University, 1964; Ph.D., 1971.

#### Cordelia M. Neitz

Associate Professor Emerita of Library Resources (1963-1976). B.S. in L.S., Syracuse University, 1931; M.S. in Ed., Temple University, 1968.

#### Richard M. Lane

Associate Professor Emeritus of Biology (1967-1995). B.S., Loyola College, 1959; M.S., University of Maryland, 1963; Ph.D., 1969.

#### Dorothy W. Culp

Associate Professor Emerita of English (1970-1990). B.A., Muskingum College, 1952; M.A., University of Pennsylvania, 1956; Ph.D., Columbia University, 1967.

#### Kathleen W. Barber

Physical Educator Emerita (1960-1987). B.A., Syracuse University, 1947.

#### **Andrés Suris**

Associate Professor Emeritus of Spanish (1973-1984). Licenciado en Derecho, Universidad de Barcelona, 1941; M.A., University of Minnesota, 1968; Ph.D., 1972.

#### Marcia B. Conner

Associate Professor Emerita of English (1964-1981). B.A., Cornell College, 1947; M.A., Columbia University, 1949.

#### Lee Ann Wagner

Physical Educator Emerita (1952; 1966-1987). B.S., Pennsylvania State University, 1948.

#### William J. Nickey

Physical Educator Emeritus (1966-1993). B.S., West Chester State College, 1957; M.Ed., 1968.

#### Isingard M. Woodworth

Assistant Professor Emerita of Library Resources (1969-1982). B.A., University of California at Berkeley, 1968; M.L.S., 1969; M.A., Pennsylvania State University, 1977.

#### Joan M. Bechtel

Librarian Emerita (1971-1995). B.A., Wilson College, 1955; M.S. in L.S., Drexel University, 1971; M.A., University of Pennsylvania, 1978. Dickinson Academic Professional Award, 1991-92.

#### Martha C. Slotten

Librarian and College Archivist Emerita (1974-1987). B.A., Earlham College, 1943; M.A., University of Wisconsin, 1950; M.A., Shippensburg State University, 1981.

#### Ella M. Forsyth

Librarian Emerita (1981-1994). B.M., Oberlin College, 1953; M.M., Mount St. Mary's College, 1964; M.L.S., University of California at Los Angeles, 1976.

# Teaching Faculty

The year of first appointment to the College appears in parentheses at the end of each individual's title(s). Information is correct as of April 1, 1996.

#### Mark C. Aldrich

Assistant Professor of Spanish (1991). B.A., Hamilton College, 1981; M.A., Ph.D., University of Massachusetts, 1991.

#### Cathleen E. Anderson

Instructor in Spanish and Portuguese (1996). B.A., Dickinson College, 1988; M.A., Pennsylvania State University, 1990.

#### Teresa A. Barber

Assistant Professor of Psychology (1993). B.A., California State University at Fresno, 1979; M.A. University of California at Berkeley, 1984; Ph.D., 1987.

#### <sup>1</sup>Charles A. Barone

Associate Professor of Economics (1975). B.A., American University, 1971; Ph.D., 1978.

#### Catherine A. Beaudry

Associate Professor of French, Director of the Dickinson Study Center in Toulouse, 1996-97 (1987). B.A., Catholic University, 1975; M.A., Columbia University, 1980; M. Phil., 1985; Ph.D., 1987.

#### William K. Bellinger

Associate Professor of Economics (1981). B.A., Michigan State University, 1972; M.S., Cornell University, 1975; Ph.D., Northwestern University, 1985.

#### Ashfaq Bengali

Assistant Professor of Chemistry (1995). B.A., Carleton College, 1986; Ph.D., University of Minnesota, 1992.

#### Gordon S. Bergsten

Associate Professor of Economics (1984). B.A., University of Washington, 1963; M.A., University of California at Berkeley, 1965; Ph.D., 1977.

#### John Bloom

Assistant Professor of American Studies (1995). B.A., University of California at Davis, 1984; M.A., University of Minnesota, 1987; Ph.D., 1991.

#### Gayle L. Bolinger

Lecturer in Financial and Business Analysis (1993). B.A., Purdue University, 1973; M.S. 1976.

#### Russell Bova

Associate Professor of Political Science (1982). B.A., State University of New York at Buffalo, 1977; M.A., Indiana University, 1980; Ph.D., 1985.

#### Robert J. Boyle

Associate Professor of Physics and Astronomy (1981). B.A., Princeton University, 1971; M.Phil., Yale University, 1976; Ph.D., 1981.

<sup>&</sup>lt;sup>1</sup>On leave First Semester 1996-97.

#### Thomas M. Brennan

Professor of Biology (1978). B.S., University of Illinois, 1965; M.S., Rutgers University, 1975; Ph.D., 1977.

#### Keith H. Brower

Associate Professor of Spanish and Portuguese (1986). B.A., Salisbury State College, 1979; M.A., Pennsylvania State University, 1981; Ph.D., 1985.

#### Pete Brown

Assistant Professor of Anthropology (1995). B.A., Idaho State University, 1981; M.A., 1986; Ph.D., University of California at Irvine, 1993. (1995-96)

#### <sup>2</sup>Barbara J. Brunner

Associate Professor of Spanish (1990). B.A., Albright College, 1979; M.A., University of Pennsylvania, 1984; Ph.D., 1990.

#### Truman C. Bullard

Professor of Music (1965). B.A., Haverford College, 1960; M.A., Harvard University, 1963; Ph.D., University of Rochester, 1971. Lindback Award for Distinguished Teaching, 1970-71. Ganoe Award for Inspirational Teaching, 1992-93.

#### John T. Burton

Assistant Professor of Education (1995). B.A., University of Maryland, 1973; M.S., Brigham Young University, 1978; Ph.D., Purdue University, 1990. (1995-96)

#### Mark S. Byrnes

Assistant Professor of History (1995). B.A., Lafayette College, 1983; M.A., University of Texas at Austin, 1987; Ph.D., 1993. (1995-96)

#### Blayne E. Carroll

Assistant Professor of Mathematics (1995). B.S., Butler University, 1990; M.S., Emory University, 1994; Ph.D., 1995. (1995-96)

#### Robert W. Cavenagh, Jr.

Associate Professor of Fine Arts and Education, Director of Instructional Media (1972). B.A., Princeton University, 1965; M.Ed., University of Virginia, 1970; Ph.D., Indiana University, 1988.

#### **Emmanuel Chiabi**

Visiting International Scholar (1996). B.A., Biola College, 1975; M.A., California State University at Fullerton, 1978; Ph.D., University of California at Santa Barbara, 1982; M.A., 1983. (Second Semester 1995-96)

#### Walter Chromiak

Associate Professor of Psychology (1979). B.A., Temple University, 1974; Ph.D., 1979.

#### David D. Commins

Associate Professor of History (1987). B.A., University of California at Berkeley, 1976; Ph.D., University of Michigan, 1985.

#### Daniel G. Cozort

Associate Professor of Religion (1988). B.A., Brown University, 1976; M.A., University of Virginia, 1983; Ph.D., 1989.

#### R. David Crouch, Jr.

Assistant Professor of Chemistry (1994). B.A., Duke University, 1978; M.S., Shippensburg University, 1985; M.A., Johns Hopkins University, 1988; Ph.D., 1991.

#### Daniel A. Daley

Instructor in Military Science (1996). B.S., Appalachian State University, 1986; Captain, Artillery, U.S. Army.

#### Ward L. Davenny

Associate Professor of Fine Arts (1992). B.F.A., San Francisco Art Institute, 1977; M.F.A., Yale University, 1982.

#### <sup>3</sup>Sylvie G. Davidson

Associate Professor of Romance Languages (1979). Licence-ès-Lettres, Université de Montpellier, 1967; Maitrise d'Italien, 1968; Doctorat de Troisieme Cycle, 1978.

#### Barbara A. Diduk

Professor of Fine Arts (1980). B.A., College of William and Mary, 1973; M.F.A., University of Minnesota, 1978.

#### <sup>1</sup>Mara E. Donaldson

Associate Professor of Religion (1990). B.A., Wilson College, 1971; M.A., Vanderbilt University, 1974; Ph.D., Emory University, 1984.

<sup>&</sup>lt;sup>1</sup>On leave First Semester 1996-97.

<sup>&</sup>lt;sup>2</sup>On leave Second Semester 1996-97.

<sup>&</sup>lt;sup>3</sup>On leave 1996-97.

#### Bonnie B. Dowdy

Assistant Professor of Psychology (1995). B.A., St. Norbert College, 1969; M.A., Duke University, 1970; M.S., Virginia Commonwealth University, 1992; Ph.D., 1994.

#### Cyril W. Dwiggins

Associate Professor of Philosophy (1970). B.A. Aquinas Institute, 1955; M.A., 1956; Ph.D. Northwestern University, 1978.

#### John R. Eaken

Artist Faculty in Music (1992). B.S., Messiah College, 1972; M.A., Temple University, 1974.

#### Beverley D. Eddy

Professor of German (1973;1983). B.A., College of Wooster, 1962; M.A., Indiana University, 1964; Ph.D., 1970.

#### Betsy K. Emerick

Associate Professor of English, Dean of Educational Services (1993). B.A., Hope College, 1963; M.S., University of Pennsylvania, 1969; Ph.D., University of California at Los Angeles, 1990.

#### Larry A. Engberg

Associate Professor of Psychology (1973). B.S., Montana State University, 1968; M.A., University of Colorado, 1972; Ph.D., 1973.

#### Kjell I. Enge

Associate Professor of Anthropology (1984). B.A., Northeastern University, 1964; Ph.D., Boston University, 1981.

#### Stephen E. Erfle

Associate Professor of Economics (1989). B.S., University of California at Davis, 1977; B.A., 1977; M.A., Harvard University, 1981; Ph.D., 1983.

#### Amy E. Farrell

Assistant Professor of American Studies (1991). B.A., Ohio University, 1985; M.A., University of Minnesota, 1988; Ph.D., 1991.

#### Susan M. Feldman

Associate Professor of Philosophy (1980). B.A., Case Western Reserve University, 1974; M.A., 1976; M.A., University of Rochester, 1978; Ph.D., 1980.

#### R. Leon Fitts

Asbury J. Clarke Professor of Classical Studies (1972). B.A., Baylor University, 1963; M.A., University of Georgia, 1967; Ph.D., Ohio State University, 1971. Ganoe Award for Inspirational Teaching, 1976-77.

#### Marjorie A. Fitzpatrick

Associate Professor of French, Administrative Coordinator for Internships (1975; 1980). B.A., College of Our Lady of the Elms, 1957; M.A., Smith College, 1959; Ph.D., University of Toronto, 1968.

#### Wayne W. Floyd

Assistant Professor of Religion (1996). B.M.E., Mississippi State University, 1972; M.Div., Emory University, 1976; Ph.D., 1985.

#### Arturo A. Fox

William W. Edel Professor of Humanities {Spanish}; (1966). Bachelor of Letters and Sciences, The Friends School, Instituto Pre-universitario de Holguin, Cuba, 1952; Doctor en Derecho, University of Havana, 1960; Ph.D., University of Minnesota, 1971. Lindback Award for Distinguished Teaching, 1980-81.

#### Christopher A. Francese

Assistant Professor of Classical Languages (1996). B.A., Oberlin College, 1987; M.A., University of Texas at Austin, 1989; Ph.D., 1993.

#### <sup>3</sup>Michael I. Fratantuono

Associate Professor of Economics (1988). B.A., Brown University, 1974; M.A., University of Rhode Island, 1982; Ph.D., University of Washington, 1988.

#### A. Lee Fritschler

Professor of Political Science, President of the College, Lemuel T. Appold Foundation Chair (1987). B.A., Union College, 1959; M.P.A., Syracuse University, 1960; Ph.D., 1965.

<sup>&</sup>lt;sup>3</sup>On leave 1996-97.

#### Elizabeth A. Frost

Assistant Professor of English (1994). B.A., Harvard University, 1985; M.A., Stanford University, 1987; Ph.D., University of California at Los Angeles, 1994.

#### <sup>4</sup>Clarke Garrett

Charles A. Dana Professor of History (1965). B.A., Carleton College, 1956; M.S., University of Wisconsin, 1957; Ph.D., 1961. Lindback Award for Distinguished Teaching, 1982-83.

#### Deborah L. Geiger

Instructor in Military Science (1993). B.A., Alvernia College, 1983; Captain, Military Police, U.S. Army.

#### **Judy S. Gill**

Instructor in English, Director of the Writing Center (1984). B.A., University of Arizona, 1965; M.A., Cornell University, 1969.

#### Amy L. Ginsburg

Assistant Professor of Dramatic Arts (1991). B.A., Duke University, 1977; M.A., University of Illinois at Urbana, 1979.

#### Philip T. Grier

Professor of Philosophy (1980). B.A., Swarthmore College, 1964; M.A., Balliol College, Oxford, 1966; Ph.D., University of Michigan, 1972.

#### Michael E. Gur

Instructor in Fine Arts (1993). B.A., College of William and Mary, 1986; M.A., University of Illinois at Urbana-Champaign, 1990.

#### William A. Harms

Associate Professor of English (1968). B.A., Hope College, 1961; M.A., Michigan State University, 1963; Ph.D., Indiana University, 1971.

#### Helen L. Harrison

Assistant Professor of French (1989). B.A., University of Virginia, 1981; M.A., Columbia University, 1984; M.Phil., 1987; Ph.D., 1989.

#### Nancy B. Hastings

Theodore and Catherine Mathias Professor of Mathematics and Computer Science (1980). B.A., Douglass College, 1968; Ph.D., Rutgers University, 1978. Lindback Award for Distinguished Teaching, 1989-90.

#### Michael K. Heiman

Associate Professor of Environmental Studies and Geography (1989). B.S., State University of New York at Stony Brook, 1971; M.S., Cornell University, 1975; M.A., University of California at Berkeley, 1978; Ph.D., 1983.

#### Lynn E. Helding

Artist Faculty in Voice (1993). Artist Diploma, Indiana University, 1988.

#### John S. Henderson

Associate Professor of French, Director of Off-Campus Studies (1966). B.A., Bates College, 1961; M.A., Brown University, 1963; Ph.D., 1966.

#### John H. Henson

Associate Professor of Biology (1989). B.A., University of Virginia, 1979; M.S., Florida State University, 1983; Ph.D., Harvard University, 1989.

#### Robert F. Hepner

Instructor in Military Science (1996). B.A., Mansfield University of Pennsylvania, 1986; Captain, Artillery, U.S. Army.

#### <sup>3</sup>Eugene W. Hickok, Jr.

Associate Professor of Political Science (1980). B.A., Hampden-Sydney College, 1972; M.A., University of Virginia, 1978; Ph.D., 1983. Ganoe Award for Inspirational Teaching, 1984-85, 1989-90.

#### <sup>2</sup>Ann M. Hill

Associate Professor of Anthropology (1986). B.A., Columbia University, 1971; M.A., University of Iowa, 1974; Ph.D., University of Illinois, 1982.

#### Sharon L. Hirsh

Professor of Fine Arts (1974). B.A., Rosemont College, 1970; M.A., University of Pittsburgh, 1971; Ph.D., 1974. Ganoe Award for Inspirational Teaching, 1981-82. Lindback Award for Distinguished Teaching, 1990-91.

#### Iames M. Hoefler

Associate Professor of Political Science (1989). B.S., Syracuse University, 1977; M.A., State University of New York at Buffalo, 1987; Ph.D., 1988.

<sup>&</sup>lt;sup>2</sup>On leave Second Semester 1996-97.

<sup>&</sup>lt;sup>3</sup>On leave 1996-97.

<sup>&</sup>lt;sup>4</sup>On half-time leave 1996-97.

#### Michael S. Holden

Associate Professor of Chemistry (1989). B.S., Allegheny College, 1980; Ph.D., Colorado State University, 1985.

#### Robert M. Hupp

Assistant Professor of Dramatic Arts (1991). B.A., Dickinson College, 1981.

#### Ellen J. Ingmanson

Assistant Professor of Anthropology (1993). B.A., University of Colorado, 1980; M.A., University of Oregon, 1981; Ph.D., 1985.

#### <sup>2</sup>Marvin Israel

Associate Professor of Sociology (1968). B.A., City College of New York, 1959.

#### Charles A. Jarvis

Professor of History (1969). B.A., DePauw University, 1963; M.A., University of Missouri, 1964; Ph.D., 1969; Diploma de Lengua y Cultura Hispanicas, University of Málaga, 1986.

#### Grace L. Jarvis

Senior Lecturer in Spanish, Director of the Dickinson Semester/Year Program in Malaga, 1996-97 (1972). B.A., DePauw University, 1966; M.A., University of Missouri, 1969.

#### <sup>2</sup>Carol Ann Johnston

Assistant Professor of English (1990). B.A., Baylor University, 1978; M.A., 1980; Ph.D., Harvard University, 1992.

#### Andrea M. Karkowski

Assistant Professor of Psychology (1995). B.A., Lock Haven University, 1990; M.A., University of Montana, 1993; Ph.D., 1994. (1995-96)

#### Vytautas M. Kavolis

Charles A. Dana Professor of Comparative Civilizations {Sociology} (1964). B.A., University of Wisconsin, 1952; M.A., Harvard University, 1956; Ph.D., 1960.

#### Marcus M. Key, Jr.

Associate Professor of Geology (1989). B.S., University of Texas at Austin, 1983; M.Phil., Yale University, 1986; Ph.D., 1989.

#### <sup>2</sup>On leave Second Semester 1996-97.

#### <sup>2</sup>Michael B. Kline

Professor of French (1968). B.A., Rutgers University, 1961; M.A., Brown University, 1962; Ph.D., 1971. Lindback Award for Distinguished Teaching, 1979-80.

#### Sinan Koont

Associate Professor of Economics (1986). B.A., Park College, 1963; M.S., University of Arkansas, 1966; Ph.D., University of Wisconsin at Madison, 1972; Ph.D., University of Massachusetts, 1987.

#### 3David L. Kranz

Associate Professor of English, Regional Director of Major Gifts (1979). B.A., Princeton University, 1964; M.A., University of California at Berkeley, 1971; Ph.D., 1977.

#### Harry D. Krebs

Professor of East Asian Studies (1972). B.A., University of Nebraska, 1963; M.A., Temple University, 1974; Ph.D., 1978. Lindback Award for Distinguished Teaching, 1987-88. Ganoe Award for Inspirational Teaching, 1988-89.

#### Cornelius Lambi

Visiting International Scholar (1996). B.S., Fourah Bay College of the University of Sierra Leone, 1972; M.S., 1976; Ph.D., University of Salford, 1991. (Second Semester 1995-96)

#### Timothy A. Lang

Assistant Professor of History, Teacher in the Dickinson Center for European Studies in Bologna, 1996-97. (1992). B.A., Williams College, 1977; M.A., University of London, 1978; M.A., Yale University, 1980; Ph.D., 1987.

#### Stephanie G. Larson

Associate Professor of Political Science (1992). B.A., University of Central Florida, 1981; M.S., Florida State University, 1983; Ph.D., 1987.

#### **Dominique Laurent**

Instructor in French (1995). Licence, Universite Catholique de L'ouest, 1978; M.A., Vanderbilt University, 1985.

<sup>&</sup>lt;sup>3</sup>On leave 1996-97.

#### Kenneth L. Laws

Professor of Physics (1962); Associate Dean of the College (1973-1976); Assistant Dean of the College (1971-1973). B.S., California Institute of Technology, 1956; M.S., University of Pennsylvania, 1958; Ph.D., Bryn Mawr College, 1962.

#### Priscilla W. Laws

Professor of Physics (1965). B.A., Reed College, 1961; M.A., Bryn Mawr College, 1963; Ph.D., 1966. Sears-Roebuck Teaching Excellence and Campus Leadership Award, 1989-90.

#### Robert E. Leyon

Professor of Chemistry (1969). B.A., Williams College, 1958; M.A., Princeton University, 1960; Ph.D., 1962.

#### Lisa J. Lieberman

Assistant Professor of History, Director of the Dickinson Center for European Studies in Bologna, 1996-97. (1991). B.A., University of Pennsylvania, 1978; M.A., Yale University, 1980; Ph.D., 1987.

#### <sup>3</sup>Carol C. Loeffler

Assistant Professor of Biology (1988). B.A., Smith College, 1982; Ph.D., Cornell University, 1992.

#### Karen E. Lordi

Assistant Professor of Dramatic Arts (1995). B.A., Rutgers University, 1989; M.F.A., Yale University, 1992.

#### John W. Luetzelschwab

Professor of Physics (1968). B.A., Earlham College, 1962; M.A., Washington University, 1968; Ph.D., 1968.

#### Peter M. Lukehart

Associate Professor of Fine Arts, Director of the Trout Gallery (1992). B.A., Eckerd College, 1977; M.A., Temple University, 1980; Ph.D., Johns Hopkins University, 1988.

#### Stephen C. MacDonald

Associate Professor of History, Associate Dean of the College (1988). B.A., Tufts University, 1969; Ph.D., University of Virginia, 1977.

#### <sup>2</sup>Lonna M. Malmsheimer

Professor of American Studies (1975). B.A., Pennsylvania State University, 1962; M.A., 1965; Ph.D., University of Minnesota, 1973. Lindback Award for Distinguished Teaching, 1986-87.

#### Christopher M. McMahon

Instructor in Political Science (1995). B.A., University of Nevada, 1988; M.A., University of Utah, 1990.

#### Nancy C. Mellerski

*Professor of French (1977).* B.A., State University of New York at Binghamton, 1966; M.A., University of Toronto, 1968; Ph.D., University of Chicago, 1980.

#### Irina Mikhailovna Mikhaleva

Visiting International Scholar (1992; 1995). M.A., Moscow State University, 1979; Ph.D., 1990. (First Semester 1996-97)

#### Craig S. Miller

Assistant Professor of Computer Science (1995). B.A., B.S., Bowling Green State University, 1987; M.S., University of Michigan, 1989; Ph.D., 1993.

#### K. Wendy Moffat

Associate Professor of English (1984). B.A., Yale University, 1977; M.A., 1979; M.Phil., 1981, Ph.D., 1986. Ganoe Award for Inspirational Teaching, 1994-95.

#### Windsor A. Morgan, Jr.

Assistant Professor of Physics and Astronomy (1994). B.A., Harvard College, 1986; Ph.D., Pennsylvania State University, 1994.

#### Mary E. Moser

Associate Professor of Classical Studies (1982). B.A., Dickinson College, 1972; Ph.D., University of Pennsylvania, 1982. Ganoe Award for Inspirational Teaching, 1986-87. Dickinson Award for Distinguished Teaching, 1993-94.

#### Wolfgang Müller

Associate Professor of German (1981). Staatsexamen, Humboldt University, 1972; M.A., University of Wisconsin, 1976; Ph.D., 1983.

<sup>&</sup>lt;sup>2</sup>On leave Second Semester 1996-97.

<sup>&</sup>lt;sup>3</sup>On leave 1996-97.

#### Pernilla M. Neal

Assistant Professor of Political Science (1992). B.A., California State University at San Francisco, 1968; M.A., 1970; M.A., Johns Hopkins University, 1973; M.B.A., American University, 1976; Ph.D., University of Colorado, 1993.

#### <sup>3</sup>Robert D. Ness

Associate Professor of English (1981). B.A., Lehigh University, 1966; Ph.D., University of North Carolina, 1981.

### Liudmila Konstantinovna Nezvankina

Visiting International Scholar (1992; 1995). M.A., Moscow State University, 1979. (Second Semester 1996-97)

#### **B. Ashton Nichols**

Professor of English (1988). B.A., University of Virginia, 1975; M.A., 1979; Ph.D., 1984. Lindback Award for Distinguished Teaching, 1992-93. Ganoe Award for Inspirational Teaching, 1993-94.

#### Susan F. Nichols

Associate Professor of Fine Arts, Associate Dean of the College (1977). B.A., University of Iowa, 1960; M.A., 1967.

#### Barbara A. Niemczyk

Assistant Professor of Russian (1990). B.A., Emmanuel College, 1969; M.A., Harvard University, 1971; M.Phil., Yale University, 1977; Ph.D., 1986.

#### Jeffrey W. Niemitz

Professor of Geology (1977). B.A., Williams College, 1972; Ph.D., University of Southern California, 1977.

#### 3Sharon J. O'Brien

James Hope Caldwell Professor of American Culture (English and American Studies) (1975). B.A., Radcliffe College, 1967; M.A., Harvard University, 1969; Ph.D., 1975. Lindback Award for Distinguished Teaching, 1985-86.

#### Paul H. Oorts

Assistant Professor of French and Italian (1993). B.A., St. Ignatius University, 1977; M.A., Pennsylvania State University, 1988; Ph.D., 1993.

#### John M. Osborne

Associate Professor of History (1979). B.A., Rice University, 1974; M.A., Stanford University, 1976; Ph.D., 1979. Sears-Roebuck Teaching Excellence and Campus Leadership Award, 1990-91.

#### Harry D. Owens

Professor of Military Science (1994). B.S., University of Scranton, 1975; M.A., 1976; J.D., University of Detroit, 1986; Lieutenant Colonel, Armor, U.S. Army.

#### Tullio Pagano

Assistant Professor of Italian (1991). Laurea in Lettere, Universita di Genova, 1981; M.A., University of Oregon, 1987; Ph.D., 1991.

#### David P. Paoli

Instructor in Francophone Studies (1996). License, Universite de Grenoble, 1987; Maitrise, Universite de Paris III, 1988; Diplome, Institut Francais de Presse, 1989; M.A., Stanford University, 1991; M.Ed., 1994.

#### Pong-Hi Park

Senior Artist Faculty in Piano (1969). B.A., Seoul National University, 1965; M.A., Peabody Conservatory of Music, 1966; Artist Diploma, 1967.

#### Susan Perabo

Assistant Professor of English, Writer-in-Residence (1996). B.A., Webster University, 1989; M.F.A., University of Arkansas, 1994.

#### Fred C. Petty

Associate Professor of Music (1971). B.M., Texas Christian University, 1961; M.A., Cornell University, 1964; Ph.D., Yale University, 1971.

#### Hans Pfister

Assistant Professor of Physics (1991). Staatsexam, Eberhard Karls Universitat, 1981; Ph.D., University of California at Los Angeles, 1991.

#### **Anthony Pires**

Assistant Professor of Biology (1993). B.A., Harvard College, 1982; Ph.D., Cornell University, 1990.

<sup>&</sup>lt;sup>3</sup>On leave 1996-97.

#### **Ronald Pirog**

Associate Professor of German, Associate Director of Off-Campus Studies (1987). B.A., University of New Hampshire, 1966; M.A., 1968; Ph.D., University of North Carolina at Chapel Hill, 1983.

#### <sup>3</sup>Harold L. Pohlman

Associate Professor of Political Science (1983). B.A., University of Dayton, 1974; Ph.D., Columbia University, 1982.

#### <sup>3</sup>Noel Potter, Jr.

Professor of Geology (1969). B.A., Franklin and Marshall College, 1961; M.A., Dartmouth College, 1963; Ph.D., University of Minnesota, 1969. Lindback Award for Distinguished Teaching, 1978-79.

#### Theodore Pulcini

Assistant Professor of Religion (1995). B.A., Harvard College, 1976; M.A., University of Notre Dame, 1979; Th.M., Harvard Divinity School, 1982; Ph.D., University of Pittsburgh, 1994.

#### Cheri L. Quinn

Associate Professor of Education (1990). B.A., San Jose State University, 1977; M.S., Oklahoma State University, 1983; Ed.D., 1989.

#### Ratha T. Ramoo

Assistant Professor of Economics (1994). B.A., University of Southern Illinois, 1984; M.S., 1986; Ph.D., University of California at Santa Barbara, 1992.

#### John S. Ransom

Assistant Professor of Political Science (1992). B.A., Columbia University, 1986; M.Phil., 1990; Ph.D., 1992.

#### David W. Reed

Assistant Professor of Computer Science (1994). B.S., Vanderbilt University, 1985; M.S., Duke University, 1988; Ph.D., 1992.

#### Thomas L. Reed, Ir.

Professor of English (1977). B.A., Yale University, 1969; M.A., University of Virginia, 1971; Ph.D., 1978.

#### George N. Rhyne

Professor of History (1965). B.A., Davidson College, 1961; M.A., University of North Carolina, 1963; Ph.D., 1968.

#### Daniel K. Richter

Associate Professor of History (1985). B.A., Thomas More College, 1976; M.A., Columbia University, 1977; M. Phil., 1979; Ph.D., 1984.

#### GailAnn Rickert

Associate Professor of Classical Studies (1990). B.A., Dickinson College, 1974; B.A., Oxford University, 1976; M.A., 1982; M.A., Harvard University, 1982; Ph.D., 1985.

#### Michael P. Roberts

Assistant Professor of Biology (1992). B.A., Colgate University, 1977; M.S., Miami University, 1979; Ph.D., Yale University, 1988.

#### Alberto J. Rodríguez

Associate Professor of Spanish (1990). B.A., Clark University, 1974; M.A., 1976; Ph.D., Brown University, 1987.

#### Gisela M. Roethke

Associate Professor of German (1985). B.A., Washington State University, 1969; M.A., 1970; Ph.D., Harvard University, 1988.

#### Kim L. Rogers

Associate Professor of History (1983). B.A., Florida State University, 1973; M.A., University of Minnesota, 1976; Ph.D. 1982.

#### Dieter J. Rollfinke

Professor of German (1964). B.S., Rensselaer Polytechnic Institute, 1963; M.A., Columbia University, 1966; Ph.D., Johns Hopkins University, 1977. Lindback Award for Distinguished Teaching, 1981-82.

#### Susan D. Rose

Associate Professor of Sociology (1984). B.A., Dickinson College, 1977; M.A., Cornell University, 1982; Ph.D., 1984.

#### Kenneth M. Rosen

Professor of English (1969). B.A., Cornell University, 1959; M.A., San Francisco State University, 1964; Ph.D., University of New Mexico, 1969; Diploma de Lengua y Cultura Hispanicas, University of Málaga, 1986.

#### S. Ned Rosenbaum

Professor of Religion and Classics (1970). B.A., Tulane University, 1961; M.A., Brandeis University, 1967; Ph.D., 1974.

#### Anne G. Rosenwald

Assistant Professor of Chemistry (1995). B.A., Hood College, 1982; Ph.D., Johns Hopkins University, 1989.

#### Lisa A. Rossbacher

Professor of Geology, Dean of the College, Russell I. Thompson Chair of the Dean of the College (1976; 1995). B.S., Dickinson College, 1975; M.A., State University of New York at Binghamton, 1978; M.A., Princeton University, 1979; Ph.D., 1983.

#### Allan J. Rossman

Associate Professor of Mathematics (1989). B.A., Geneva College, 1984; M.S., Carnegie Mellon University, 1986; Ph.D., 1989.

#### J. Mark Ruhl

Glenn E. and Mary L. Todd Professor of Political Science (1975). B.A., Dickinson College, 1970; M.A., Syracuse University, 1972; Ph.D., 1975. Lindback Award for Distinguished Teaching, 1988-89.

#### **Cindy Samet**

Associate Professor of Chemistry (1988). B.S., Dickinson College, 1982; Ph.D., University of Virginia, 1988.

#### Marc D. Sanders

Assistant Professor of Mathematics (1996). B.A., Amherst College, 1988; Ph.D., Stanford University, 1994.

#### Melinda W. Schlitt

Assistant Professor of Fine Arts (1990). B.A., State University of New York at Purchase, 1981; M.A., Johns Hopkins University, 1983; Ph.D., 1991.

#### Helen R. Segall

Professor of Russian (1976). B.S., Simmons College, 1954; Ph.D., Bryn Mawr College, 1974.

#### Tong Shen

Instructor in Chinese (1995). M.A., Chinese Academy of Social Sciences, Beijing, 1982; M.A., University of Massachusetts, 1994. (1995-96)

#### <sup>3</sup>Robert D. Sider

Charles A. Dana Professor of Classical Languages (1968). B.A., University of Saskatchewan, 1955; M.A., 1956; B.A., Oxford University, 1958; M.A., 1964; Ph.D., 1965. Lindback Award for Distinguished Teaching, 1973-74. Ganoe Award for Inspirational Teaching, 1978-79.

#### Christopher E. Silva

Assistant Professor of Psychology (1995). B.A., Trinity College, 1984; M.A., University of Connecticut, 1988; Ph.D., 1990.

#### <sup>3</sup>James A. Skelton

Associate Professor of Psychology (1981). B.A., Washington & Lee University, 1976; Ph.D., University of Virginia, 1981.

#### Gregory J. Smith

Associate Professor of Psychology (1981). B.A., Plymouth State College, 1977; M.A., State University of New York at Buffalo, 1980; Ph.D., 1981.

#### <sup>2</sup>T. Scott Smith

Professor of Physics and Astronomy (1969). B.A., Princeton University, 1963; Ph.D., University of Maryland, 1967.

#### Sharon M. Stockton

Assistant Professor of English and Director of Writing (1991). B.A., California State University at Fresno, 1985; M.A., 1987; Ph.D., University of Washington, 1991.

#### Jack R. Stodghill

Associate Professor of Mathematics (1967). B.A., Wabash College, 1957; M.S., Purdue University, 1960; M.S., Florida State University, 1975; Ph.D., Brown University, 1971.

#### Richard J. Stoller

Assistant Professor of History (1992). B.A., Wesleyan University, 1985; M.A., Duke University, 1987; Ph.D., 1991.

<sup>&</sup>lt;sup>2</sup>On leave Second Semester 1996-97.

<sup>&</sup>lt;sup>3</sup>On leave 1996-97.

#### Rainer Stollman

Associate Professor of German, Director of the Dickinson Program in Bremen (1986). Staatsexam, Universitat Bremen, 1972; Ph.D., 1977; P.D., 1995.

#### David G. Strand

Professor of Political Science (1980). B.A., Lawrence University, 1971; M.A., Columbia University, 1973; M.Phil., 1974; Ph.D., 1979.

#### Douglas T. Stuart

Robert Blaine Weaver Professor of Political Science (1986). B.A., Marist College, 1970; M.A., University of Southern California, 1974; Ph.D., 1979. Ganoe Award for Inspirational Teaching, 1990-91.

#### Wakaba Tasaka

Instructor in Japanese Language and Literature (1992). B.A., Nihon University, 1983; M.A., University of Illinois at Urbana-Champaign, 1986.

#### Debra L. Terzian

Assistant Professor of French (1993). B.A., Tufts University, 1979; M.A., Boston University, 1981; Ph.D., Brown University, 1993.

#### <sup>1</sup>Barry A. Tesman

Associate Professor of Mathematics (1989). B.S., Colby College, 1981; Ph.D., Rutgers University, 1989.

#### Davis C. Tracy

Assistant Professor of Psychology, Director of Counseling Services (1982). B.A., Lehigh University, 1970; M.A., University of Connecticut, 1974; Ph.D., University of Tennessee, 1981.

#### Isabel Valiela

Assistant Professor of Spanish (1995). B.A., State University of New York at Albany, 1970; M.A., New York University, 1971; Ph.D., Duke University, 1977. (1995-96)

#### Frederick L. Van Doren

Assistant Professor of Russian (1990). B.A., George Washington University, 1984; M.A., 1986; Ph.D., University of California at Berkeley, 1993.

#### Charles S. Wallis

Assistant Professor of Philosophy (1995). B.A., Metropolitan State College, 1987; Ph.D., University of Minnesota, 1991. (1995-96)

#### Stephen-Weinberger

Robert Coleman Professor of History (1969). B.A., Northeastern University, 1965; M.A., University of Wisconsin, 1966; Ph.D., 1969.

#### Neil B. Weissman

Professor of History, Director of the Clarke Center for the Interdisciplinary Study of Contemporary Issues (1975). B.A., Colgate University, 1970; M.A., Princeton University, 1972; Ph.D., 1976. Lindback Award for Distinguished Teaching, 1984-85.

#### <sup>3</sup>Candie C. Wilderman

Associate Professor of Environmental Science (1974). B.S., Tufts University, 1968; M.A., Harvard University, 1969; Ph.D., Johns Hopkins University, 1984.

#### Blake M. Wilson

Associate Professor of Music (1993). B.A., University of California at Berkeley, 1978; M.M., Indiana University, 1982; Ph.D., 1987.

#### Robert P. Winston

Professor of English (1979). B.A., Bates College, 1972; M.A., University of Wisconsin, 1973; Ph.D., 1979.

#### Neil S. Wolf

Professor of Physics (1967). B.S., Queens College, 1958; M.S., Stevens Institute of Technology, 1960; Ph.D., 1966. Lindback Award for Distinguished Teaching, 1983-84.

#### Janet Wright

Associate Professor of Biology (1987). B.S., North Carolina State University, 1970; M.A.T., University of North Carolina, 1974; Ph.D., Cornell University, 1983.

#### Todd A. Wronski

Associate Professor of Dramatic Arts, Director of the Dickinson Program in England, 1996-97 (1987). B.A., Gustavus-Adolphus College, 1978; M.F.A., Trinity University, 1981.

<sup>&</sup>lt;sup>1</sup>On leave First Semester 1996-97.

<sup>&</sup>lt;sup>3</sup>On leave 1996-97.

#### Rui Yang

Assistant Professor of Chinese Language and Literature (1990). Graduate School, Chinese Academy of Social Sciences, 1981; M.A., University of Massachusetts, 1985; Ph.D., 1991.

#### Midori Yasuda

Instructor in Japanese (1994). B.S., State University of New York at Brockport, 1992; M.A., University of Wisconsin at Madison, 1994.

#### Gene M. Yogodzinski

Assistant Professor of Geology (1995). B.S., University of Maine, 1979; M.S., Oregon State University, 1985; Ph.D., Cornell University, 1993.

#### Viki Zavales

Instructor in Spanish (1996). B.A. in Humanities and B.A. in Mathematics and Science, Fordham University, 1989; M.A., Johns Hopkins University, 1991.

#### Linda S. Zee

Assistant Professor of Spanish (1993). B.A., Colby College, 1982; M.A., Indiana University, 1987; Ph.D., 1993.

#### Charles F. Zwemer

Assistant Professor of Biology (1995). B.A., Hope College, 1987; Ph.D., Indiana University, 1993.

## Academic Professionals

The year of first appointment to the College appears in parentheses at the end of each individual's title(s). Information is correct as of April 1, 1996.

#### Robert W. Cavenagh, Jr.

Director of Instructional Media, Associate Professor of Fine Arts and Education (1972). B.A., Princeton University, 1965; M.Ed., University of Virginia, 1970; Ph.D., Indiana University, 1988.

#### Mariorie A. Fitzpatrick

Administrative Coordinator for Internships, Associate Professor of French (1975;1980). B.A., College of Our Lady of the Elms, 1957; M.A., Smith College, 1959; Ph.D., University of Toronto, 1968.

#### Judy S. Gill

Director of the Writing Center, Instructor in English (1984). B.A., University of Arizona, 1965; M.A., Cornell University, 1969.

#### John S. Henderson

Director of Off-Campus Studies, Associate Professor of French (1966). B.A., Bates College, 1961; M.A., Brown University, 1963; Ph.D., 1966.

#### James B. Lartin-Drake

Technical Director for the Mermaid Players (1974). B.A., Dickinson College, 1970.

#### Peter M. Lukehart

Director of the Trout Gallery, Associate Professor of Fine Arts (1992). B.A., Eckerd College, 1977; M.A., Temple University, 1980; Ph.D., Johns Hopkins University, 1988.

#### **Ronald Pirog**

Associate Director of Off-Campus Studies, Associate Professor of German (1987). B.A., University of New Hampshire, 1966; M.A., 1968; Ph.D., University of North Carolina at Chapel Hill, 1983.

# Library Resources

#### Neal A. Baker

Librarian (1995). B.A., Carleton College, 1991; M.A., University of Iowa, 1993.

#### J. Steven McKinzie

Librarian (1988). B.A., East Texas State University, 1975; M.A., East Carolina University, 1982; M.L.S., Vanderbilt University, 1988.

#### Sue K. Norman

Librarian (1980). B.A., State University of New York at Albany, 1967; M.A., 1968; M.A., University of Iowa, 1980.

#### Nancy A. Persons

Librarian (1993). B.A., University of Vermont, 1983; M.A. 1987; M.L.S., Simmons College, 1992.

#### Kristin S. Senecal

*Librarian* (1988). B.A., University of Delaware, 1976; M.S.L.S., University of North Carolina at Chapel Hill, 1977; M.A., Shippensburg University, 1990.

#### <sup>1</sup>John C. Stachacz

Librarian (1981). B.A., University of New Mexico, 1975; M.A., University of Kentucky, 1977; M.S. in L.S., 1978.

#### Izabella Tomljanovich

Librarian (1995). B.A., Middlebury College, 1987; M.A., 1988; M.A., Yale University, 1991.

# Physical Education

#### Darwin P. Breaux

Physical Educator (1989). B.S., West Chester University, 1977; M.Ed., 1979.

#### David N. Frohman

Physical Educator (1989). B.A., Indiana University, 1972; M.Ed., Xavier University, 1974.

#### Kelly L. Hart

Physical Educator (1991). B.S., Villanova University, 1987; M.A., Trenton State College, 1990.

#### Anne E. Haynam

Physical Educator (1990). B.A., Hiram College, 1988; M.A., Shippensburg University, 1992.

#### Pamela A. Mehrens

Physical Educator (1995). B.A., North Central College, 1982; M.S., North Dakota State University, 1987.

#### Donald J. Nichter

Physical Educator (1983). B.A., Ithaca College, 1979; M.A., Pennsylvania State University, 1983.

#### <sup>5</sup>Leslie J. Poolman

Physical Educator (1988). B.Ed., Keele University, 1974; M.S., West Virginia University, 1977; Ed.D., 1979.

#### <sup>2</sup>Joel M. Quattrone

Physical Educator (1987). B.S., Canisius College, 1982; M.S., 1984.

#### <sup>3</sup>Julie Ramsey-Emrhein

Physical Educator (1986). B.S., Lock Haven University, 1983; M.Ed., University of Virginia, 1984.

#### Paul L. Richards

Physical Educator (1994). B.S., Bloomsburg University, 1975; M.S., Indiana University of Pennsylvania, 1990.

#### Tracy E. Santanello

Physical Educator (1993). B.S., Springfield College, 1990; M.S., 1992.

#### Robert H. Shank

Physical Educator (1980). B.S., Millersville State College, 1970; M.Ed., University of Virginia, 1979; Ed.D., 1988.

#### Michael J. Yesalonia

Physical Educator (1993). B.S., Norwich University, 1982; M.Ed., 1983.

#### Judith M. Yorio

Physical Educator (1980). B.S., Springfield College, 1973; M.S., Southern Connecticut State College, 1980. Dickinson Academic Professional Award, 1993-94.

<sup>&</sup>lt;sup>1</sup>On leave First Semester 1996-97.

<sup>&</sup>lt;sup>2</sup>On leave Second Semester 1996-97.

<sup>&</sup>lt;sup>3</sup>On leave 1996-97.

<sup>&</sup>lt;sup>5</sup>On leave Summer 1997.

# Administrators

The names of all administrators within an administrative area are listed alphabetically following the name of the individual responsible for that area. The year of first appointment to the College appears in parentheses at the end of each individual's title(s). Information is correct as of April 1, 1996.

## Office of the President

#### A. Lee Fritschler

President of the College, Lemuel T. Appold Foundation Chair, Professor of Political Science (1987). B.A., Union College, 1959; M.P.A., Syracuse University, 1960; Ph.D., 1965.

#### Peter J. Balcziunas

Executive Assistant to the President, Secretary of the College, (1984). B.A., Ohio State University, 1969.

## Office of Admissions

#### R. Russell Shunk

Dean of Admissions (1976). B.A., Lafayette College, 1965; M.A., Lehigh University, 1966.

#### Laura L. Burrell

Assistant Director of Admissions (1995). B.A., Dickinson College, 1994.

#### Angela S. Fernandez

Associate Director of Admissions (1990). B.A., Dickinson College, 1990.

#### Christopher A. Johnson

Assistant Director of Admissions (1994). B.S., Western Carolina University, 1992.

#### Kristen R. Leach

Assistant Director of Admissions (1995). B.A., Dickinson College, 1994.

#### Laura A. Legg

Admissions Counselor (1995). B.A., Dickinson College, 1995.

#### Catherine M. McDonald

Senior Associate Director of Admissions (1987;1992). B.A., Dickinson College, 1987; M.S., University of Pennsylvania, 1991.

#### **Javier A. Palazuelos**

Admissions Counselor (1995). B.A., Dickinson College, 1995.

#### †Amy L. Snow

Admissions Counselor (1993). B.A., Dickinson College,

### Division of Academic Affairs

#### Lisa A. Rossbacher

Dean of the College, Russell I. Thompson Chair of the Dean of the College, Professor of Geology (1976;1995). B.S., Dickinson College, 1975; M.A., State University of New York at Binghamton, 1978; M.A., Princeton University, 1979; Ph.D., 1983.

#### Brenda K. Bretz

Assistant Registrar (1982). B.A., Dickinson College, 1995.

#### Ronald E. Doernbach

Registrar, Coordinator of Institutional Data Analysis (1974). B.A., Dickinson College, 1965.

#### Michele K. Hassinger

Associate Director of the Clarke Center for the Interdisciplinary Study of Contemporary Issues (1994). B.A., Dickinson College, 1980; M.B.A., Shippensburg University, 1988.

#### Matthew W. Howell

Director of Sports Information (1993) B.A., University of Akron, 1990; M.A., Ohio State University, 1993.

#### Mary Elizabeth Kirtley

Director of Graduate Decisions, Research Professor of Biological Chemistry (1984). B.A., University of Chicago, 1956; M.A., Smith College, 1958; Ph.D., Western Reserve University, 1964.

<sup>†</sup>Died September 9, 1995.

#### Stephen C. MacDonald

Associate Dean of the College, Associate Professor of History (1988). B.A., Tufts University, 1969; Ph.D., University of Virginia, 1977.

#### Susan F. Nichols

Associate Dean of the College, Associate Professor of Fine Arts (1977). B.A., University of Iowa, 1960; M.A., 1967.

#### Paul T. Riggs

Assistant to the Office of Academic Affairs (1994). B.A., Dickinson College, 1985; M.A., University of Pittsburgh, 1988.

# Division of Educational Services and Student Affairs

#### Betsy K. Emerick

Dean of Educational Services, Associate Professor of English (1993). B.A., Hope College, 1963; M.S., University of Pennsylvania, 1969; Ph.D., University of California at Los Angeles, 1990.

#### †Kurt R. Bair

Associate Director of Counseling Services (1989). B.A., Gettysburg College, 1976; M.S., Shippensburg University, 1981.

#### Judith May-Bennett

Health Educator (1988). B.S., Lock Haven University, 1965.

#### Pamela D. Blake

Director of Multicultural Affairs (1991). B.S., North Carolina Central College, 1981; M.S., Pennsylvania State University, 1984; Ed.D., 1989.

#### Katharine S. Brooks

Director of Career Services (1984). B.A., Gettysburg College, 1976; M.S., West Virginia University, 1979; Ph.D., 1989.

#### David M. Campbell

Assistant Director of Residential Life (1994). B.A., Lock Haven University, 1990; M.A., Edinboro University of Pennsylvania, 1993.

#### Madelyn S. Campbell

Associate Director of Financial Aid (1985). B.A., University of Michigan, 1971.

#### Mary Watson Carson

Associate Dean of Educational Services, The George Metzger Chair of the Dean of Women (1968). B.A., Wichita State University, 1959; M.A., 1960.

#### Linda M. Chalk

Assistant Director of Counseling Services (1996). B.A., Kalamazoo College, 1991; M.A., University of Notre Dame, 1994; Ph.D., 1996.

#### John-Paul Checkett

Assistant Director of Counseling Services (1996). B.A., University of Notre Dame, 1989; M.A., 1993; Ph.D., 1994.

#### Nancy T. Cicak

Nurse Practitioner (1985). R.N., Harrisburg Area Community College, 1978; Nurse Practitioner Certificate, University of Pennsylvania, 1981.

#### Wallace L. Eddy

Assistant Director of the Holland Union Building and Student Activities (1989). B.S., Castleton State College, 1987; M.S., Western Illinois University, 1989.

#### Patricia A. Fonzi

Assistant Director of Residential Life (1995). B.A., St. John Fisher College, 1992; M.A., Edinboro University of Pennsylvania, 1994.

#### Richard A. Heckman

Associate Director of Financial Aid (1986). B.A., Thiel College, 1975; M.A., West Virginia College of Graduate Studies, 1979.

#### Barbara L. Hewitt

Assistant Director of Career Services (1993). B.A., Dickinson College, 1989; M.S., Shippensburg University, 1991.

#### Margaret P. Jennings

Associate Dean for Residential Life (1994). B.A., DePauw University, 1979; M.Ed., Miami University, 1981.

<sup>†</sup>Died August 14, 1995.

#### Thomas J. Mottola

Director of Residential Life (1994). B.A., Georgetown University, 1983; M.Ed., Harvard University, 1985.

#### Mary A. Powell

Director of Health Services (1982). R.N., Norwalk Hospital School of Nursing, 1970; B.S., Nurse Practitioner Certificate, George Washington University, 1978; M.P.A., Pennsylvania State University, 1995.

#### Donald V. Raley

Director of Financial Aid (1977). B.A., Blackburn College, 1960; M.A., University of Colorado, 1967.

#### Krista E. Shedlosky

Registered Nurse (1994). A.A., Harrisburg Area Community College, 1972.

#### Mary J. Spellman

Director of the Holland Union Building and Student Activities (1995). B.A., Occidental College, 1991; M.A., Indiana University, 1995.

#### Davis C. Tracy

Director of Counseling Services, Assistant Professor of Psychology (1982). B.A., Lehigh University, 1970; M.A., University of Connecticut, 1974; Ph.D., University of Tennessee, 1981.

#### Margaret C. Upton

Nurse Practitioner (1994). B.S., York College of Pennsylvania, 1983; M.S., University of Missouri at Columbia, 1987.

# Division of External Affairs

#### Robert E. Freelen

Vice President for External Affairs (1993). B.A., Stanford University, 1957; M.B.A., 1959.

#### Kelly A. Alsedek

Director of Publications (1983). B.A., Gettysburg College, 1971.

#### Adrian M. Bailey

Director of News Services (1993). B.A., University of Georgia, 1985.

#### Sue A. Baldwin-Way

Director of College Relations (1996). B.S., Cook College of Rutgers University, 1978.

#### Favruz M. Benyousef

Assistant Director of Annual Giving (1994). B.A., Dickinson College, 1994.

#### James E. Connell

Director of Planned Giving (1994). B.A., LaSalle College, 1967; M. Ed., University of Maryland, 1968.

#### David L. Kranz

Regional Director of Major Gifts, Associate Professor of English (1979). B.A., Princeton University, 1964; M.A., University of California at Berkeley, 1971; Ph.D., 1977.

#### Theodore S. Martin

Assistant Director of Alumni and Parent Relations (1995). B.A., Dickinson College, 1987.

#### Janice C. Middleton

Development Research Associate (1992).

#### **Ann Hess Myers**

Associate Director of College Relations for Alumni and Parent Relations (1982). B.A., Kenyon College, 1979.

#### Karen L. Neely

Associate Campaign Director (1986). B.A., Dickinson College, 1986.

#### Jonathon J. Powers

Campaign Director (1985). B.A., Washington College, 1973.

#### Patrick E. Riley

Director of Development Research (1993). B.A., Boston University, 1962; M.S., Florida Institute of Technology, 1973.

#### Angela C. Sontheimer

Director of Annual and Parent Giving (1990). B.A., Gettysburg College, 1990.

#### Christina P. VanBuskirk

Director of Operations for Corporate, Foundation and Annual Support (1991). B.A., Bucknell University, 1970; M.A., 1978.

#### Elizabeth A. Woods

Assistant Director of Annual Giving (1995). B.A., Dickinson College, 1995.

#### Christopher Zenowich

Associate Director of College Relations (1995). B.A., Hamilton College, 1976; M.A., Syracuse University, 1987.

## Division of Financial Affairs

#### Michael L. Britton

Vice President and Treasurer (1985). B.A., University of Massachusetts, 1971; M.Ed., American University, 1974; Ph.D., American University, 1977; M.B.A., University of Minnesota, 1979.

#### Carol A. Adams

Assistant Director of the Dickinson College Children's Center (1989). B.S., Bloomsburg State College, 1977.

#### Stephen D. Barley

Assistant Director of Personnel (1995). B.S., Gettysburg College, 1991.

#### John M. Davis III

Director of the College Store (1987). A.A., Pennsylvania State University, 1985.

#### Joanne L. Gingrich

Assistant Treasurer (1992). B.A., Wittenberg University, 1975.

#### Michael S. Helm

Director of Purchasing and Auxiliary Services (1984). B.S., Shippensburg University, 1975.

#### Keith L. Martin

Director of Dining Services (1987).

#### Samuel R. McKelvey

Director of Safety and Security (1990). B.S., Central Missouri State University, 1972.

#### Thomas B. Meyer

Assistant Treasurer (1986). B.S., Susquehanna University, 1968.

#### David P. Moers

Director of Personnel (1995). B.S., Arizona State University, 1968; M.S., 1972; Ph.D., 1979.

#### **Annette Smith Parker**

Associate Treasurer for Financial Operations (1988). B.A., Dickinson College, 1973; M.B.A., Shippensburg University, 1987.

#### Jane M. Seller

Director of the Dickinson College Children's Center (1989). B.A., Dickinson College, 1955.

#### Kenneth E. Shultes

Director of the Physical Plant (1995). B.A., Dickinson College, 1989.

#### Nickolas G. Stamos

Associate Treasurer for Support Operations (1977; 1987). A.A., Harrisburg Area Community College, 1971; B.S., York College of Pennsylvania, 1974.

#### Dorothy M. Warner

Coordinator of Conferences and Special Events (1976).

# Computer Services Center

#### John D. Balling

Director of Computer Services (1989). B.A., Northwestern University, 1967; M.A., University of Massachusetts, 1971; Ph.D., 1973.

#### Ricky L. Armolt

Programmer Analyst (1990).

#### Daniel I. Buchan

Academic Computing Specialist (1990). B.A., Dickinson College, 1987.

#### Michael J. Hite

Manager of Networking Services (1995). B.S., Carnegie Mellon University, 1986.

#### John R. Luthy

Coordinator of Administrative Computing (1981). B.A., Dickinson College, 1974.

#### Donald B. Newcomer

Assistant Director of Computer Services (1982). B.S., Lebanon Valley College, 1979.

#### **Robin Peoples**

Administrative Computing Specialist (1988).

#### Mary P. Ravida

Academic Applications Analyst/Programmer (1989). B.S., University of Pittsburgh, 1986.

#### Bruce R. Rice

Coordinator of Systems Development (1990). B.A., Eastern Washington University, 1979; M.B.A., 1985.

#### William A. Sadvary

Computer Systems Manager (1990). B.S., California University of Pennsylvania, 1986.

#### A. Michael Wolter

Administrative Applications Analyst/Programmer (1986). B.A., Vassar College, 1986.

# Administrators (Retired)

The names of all retired administrators are listed alphabetically. The years of first appointment to the College and of retirement appear in parentheses at the end of each individual's title. Information is correct as of April 1, 1996.

#### George Allan

Dean of the College, Retired (1974-1995); George Allan Distinguished Professor Emeritus of the Liberal Arts, Professor Emeritus of Philosophy (1963-1996). B.A., Grinnell College, 1957; B.D., Union Theological Seminary, 1960; Ph.D., Yale University, 1963. Lindback Award for Distinguished Teaching, 1968-69.

#### Howard G. Baum

Director of Auxiliary Services, Retired (1964-1987). B.A., Dickinson College, 1950.

#### Robert W. Belyea

Associate Treasurer and Comptroller, Retired (1968-1992). B.A., Colby College, 1951.

#### Esther M. Bushey

Director of Health Services, Retired (1960-1984). R.N., Germantown Hospital School of Nursing, 1941.

#### Leonard G. Doran

Executive Director of Communications and Development, Retired (1973-1984). B.A., Harvard University, 1942; M.A., George Washington University, 1949.

#### George L. Eurich

Director of Physical Plant, Retired (1970-1988).

#### Margaret D. Garrett

Associate Dean of the College, Assistant Professor of English, Retired (1976-1994). B.A., Illinois State University, 1957; M.A., Northwestern University, 1971; Ph.D., George Washington University, 1978.

#### J. Larry Mench

Dean of Admissions and Enrollment, Retired (1974-1995). B.A., Oberlin College, 1962; M.A., 1963.

#### Carmen G. Neuberger

Dean of Educational Services and Student Affairs, Retired (1987-1993). B.S., University of Maryland, 1955; M.Ed. American University, 1973; Ed.D., 1977; J.D., 1983.

#### M. Charles Seller

Executive Assistant to the President and Secretary of the College, Retired (1975-1995). B.A., Dickinson College, 1955; M.A., Pennsylvania State University, 1963.

#### Nancy Lee Winkelman

Director of Publications, Retired (1975-1990). B.A., Western Maryland College, 1951; M.Ed., 1969.

# Board of Advisors

The Board of Advisors is an advisory and consultative body to the president and administration of the College. Its members serve by presidential appointment and are selected on the basis of achievement, expertise, and commitment to the College.

The Board advises and is consulted on current and long-range planning issues, and its members often assist in special projects. Advisors also serve as informal spokespersons for the College to external constituents. To provide liaison between the advisors and trustees, the chair of the Board of Advisors serves as an *ex officio* member of the Board of Trustees.

The Board of Advisors meet twice yearly on campus with the president and senior members of the administration. Frequent interaction with faculty, students, and other guests is a hallmark of campus visits.

Meetings of the Board of Advisors serve a number of important functions. They are an occasion for keeping the advisors informed, through formal presentations, visits to facilities, and immediate and personal interchanges, on affairs of the College and developments affecting higher education in general. The meetings also provide a forum wherein the advisors bring their special skills to bear on topics of institutional importance. The formal sessions and related social events help advisors develop effective working and social relationships among themselves and with members of the College community.

# Officers

Jonathan P. Murray '84

Chair

# Members

Norman R. Bitterman President, Caliber Commercial Corp., Norristown, PA

S. Lawrence Brotmann '60 Attorney, Brotmann and Freedman, White Plains, NY

Donald R. Buxton, Jr. '63 Staff Radiologist, Harrisburg Hospital, Harrisburg, PA Juli Davidson Chusid '70 Creative Director, New Business, MTV Networks, New York, NY

Robert H. Clarke '80 President, Greenwich International, Vero Beach, FL

Benjamin Compaine '67
Bell Atlantic Professor of Telecommunications,
School of Communications and Theater, Temple University, Philadelphia, PA

Sackett S. Cook '62 Regional Vice President, Sackett Cook & Associates, Towson, MD

Robert P. Corbin '70 Attorney & Partner, German, Gallagher & Murtagh, P.C., Philadelphia, PA

Richard E. Craft '81 Executive Vice President, Karr-Barth Associates, Bala Cynwyd, PA

Ann Conser Curley '63 Potomac, MD 20854

Thomas S. Davis '62 Aesthetic/Reconstructive Surgeon, Hershey, PA

Charles W. Ehrlich '67 Attorney, St. Petersburg, FL

Eric P. Evans '68 Business Survival Specialist, Evans, Hagen & Company, Bethlehem, PA

John J. Farrell '76 Senior Vice President of Finance, Shoptaw James, Inc., Atlanta, GA

Robert M. Frey '50 Attorney, Carlisle, PA

Charles Fromer '62 Vice President and Branch Manager, Dean Witter Reynolds, Inc., Harrisburg, PA

1996-97 Catalogue

Daniel R. Gilbert, Jr., '74

Associate Professor of Management, Bucknell University, Lewisburg, PA

George M. Gill '54

Vice President, Clinical Research & Development, Ligand Pharmaceuticals, San Diego, CA

Roberta Zmuda Greenspan '77

Senior Vice President, First Union Bank, McLean, VA

Perrin C. Hamilton '43

Senior Partner, Hepburn, Willcox, Hamilton & Putnam, Philadelphia, PA

John R. Heath '71

District Manager, Karastan/Division of Mohawk Industries, Glen Ellyn, IL

Kevin Holleran '73

Attorney, Gawthrop, Greenwood and Halsted, West Chester, PA

R. Lee Holz '57

Retired Vice President and General Counsel, Aluminum Company of America, Pittsburgh, PA

James D. Hutchinson '65

Financial Consultant, Strategic Capital Advisers, Inc., Denver, CO

Thomas I. Kirlin '84

President, AAS Environmental, Inc., Bethesda, MD

Hesung Chun Koh '51

President & Director, East Rock Institute, New Haven, CT

John M. Kohlmeier '56

Professor of Info Systems, DePaul University of Accountancy, DePaul, IL

Jennifer Ward Lambdin '77

Senior Vice President and Chief Investment Officer, First National Bank of Maryland, Baltimore, MD

William P. Lincke '73

Dickinson College

Partner, Beatty, Young, Otis & Lincke, Media, PA

Peter C. Marks '73

Executive Director, American Institute of Banking, Bethesda, MD

John A. Matta '56

Stated Clerk, Pittsburgh Presbytery, Pittsburgh, PA

Lisa K. Matthews '83

Sales Manager, Professional Planners Group, New York, NY

David R. Murray '84

Vice President, Capital Group/American Funds, Issaguah, WA

Jonathan P. Murray '84

Associate Vice President-Investments, Sales Manager, Legg Mason, Inc., Baltimore, MD

Edward W. Poitras

Real Estate Developer, Appreciation Properties, Inc., Orlando, FL

Kay Gleim Poitras '53

Parish Coordinator, St. Alban's Episcopal Church, Auburndale, FL

Meyer P. Potamkin '32

President, Boulevard Mortgage Co., Philadelphia, PA

Anne Neide Pringle '57

Science Librarian, Bryn Mawr College, Bryn Mawr, PA

Harris M. Reiter '70

Broker/Owner, Rocky Mountain Real Estate Group, Evergreen, CO

Michele Mahoney Richardson '85

First Vice President, Lehman Brothers, New York, NY

Christopher L. Roberts '75

Senior Research Analyst, AIG Trade and Political Risk, New York, NY

Andrew Y. Rogers '65

Vice President, Sales and Marketing, Fashionaire Home Products, Edison, NJ L. Lewren Sibert, Jr. '72 Managed Care Specialist, Burroughs Wellcome Company, Tampa, FL

Sharon Dunbar Sibert '72 Staff Physician/Ambulatory Care, James A. Haley Veterans Hospital and Assistant Professor, University of South Florida, Tampa, FL

Marjorie A. Speers '78 Division Director, Centers for Disease Control, Division of Chronic Disease Control, Atlanta, GA

Charles L. Strum '70 Editor, Sunday New Jersey, New York, NY

Charles I. Wagner '63 Medical Affairs, Vice President, Holy Redeemer Hospital, Meadowbrook, PA

Gina Ingoglia Weiner '60 Author of Children's Books, Brooklyn, NY

Ray L. Wolfe Chairman and Chief Executive Officer, Financial Trust Corp., Carlisle, PA

# Alumni Council

The Alumni Council is the governing body of the General Alumni Association of Dickinson College. The council is composed of 30 members, elected or appointed for three year terms, and membership is open to all alumni. The alumni council acts as a decision making body on issues and programs directly affecting the alumni program, and as an advisory board on matters of College policy or procedure. The council meets on campus at least twice a year, and additionally at the discretion of its president.

## Alumni Trustees

Dr. Louise Hauer Greenberg '54 (Term expires 1997) Carlisle, PA

Nanci Fox Taylor '76 (Term expires 1997) Reston, VA

Ann Lemkau Houpt '59 (Term expires 1998) Summit, NJ

Robert A. Watson '58 (Term expires 1998) Washington DC

\*Note: Selection in progress at time of printing for trustee whose term expires 2000.

# Officers

(elections in progress at time of printing) President, Vice President, Secretary

# Term Expires 1997

John A. Bierly DDS '66 West Hartford, CT

Kyle Stewart Evans '78 Doylestown, PA

Jeffrey P. Foster '92 Woodbury, NJ



Lisa Goldman '95 Bethesda, MD

Rev. Frances Foley Guest '48 New York, NY

Kevin J. Holleran, Esq. '73 Downingtown, PA

Kevin Johnson M.D. '83 Baltimore, MD

The Hon. Richard A. Levie '66 Washington, D.C.

Linda DiVincenzo MacDonald '67 Mickleton, NJ

James L. Pritchard '53 Telford, PA

Falguni Raval '95 Hackensack, NJ

# Term Expires 1998

Edmund A. Abramovitz '72 East Windsor, NJ Pamela Byron '93 Washington DC

Christine Myers Crist '46 Camp Hill, PA Linda Fisher Davis '83 Philadelphia, PA

Eric Denker '75 Falls Church, VA

James H. Houser '53 West Chester, PA

Karen Pettit '96 Dickinson College

Sharon E. Sievers '70 Arlington, VA

Robert J. Thomas '40 Sherrill, NY

Gregory E. Zimmerman '83 Ellicott City, MD

# Term Expires 1999

(elections in progress at time of printing)

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# Parents Council

Dickinson's Parents Council members serve as liaison between the College administration and the general parent body. They may be contacted by those who desire information about the College from a parent's perspective.

# Term Expires 1997

Mr. and Mrs. Robert Anderman Thornton, PA; 610-459-1055

Prof. and Mrs. Ronald Horwege Amherst, VA; 804-946-7316

Mr. and Mrs. Louis Margolis Short Hills, NJ; 201-467-0977

Mr. and Mrs. Barry R. Meinerth Ridgefield, CT; 203-431-0786

Anne E. Selden West Hartford, CT; 203-232-8237

Drs. Robin and Flora Torres Everett, PA; 814-623-5421

# Term Expires 1998

Mr. and Mrs. David Cafaro Rumson, NJ; 908-530-0416

Mr. and Mrs. John S. Hunt Little Silver, NJ; 908-530-8464

Dr. and Mrs. Jeffrey Hyde Carmel Valley, CA; 408-659-5596

Mr. Alan H. Magazine Alexandria, VA; 703-461-7117

Dr. and Mrs. Rajendar Saini Columbia, MD; 410-730-0341

# Term Expires 1999

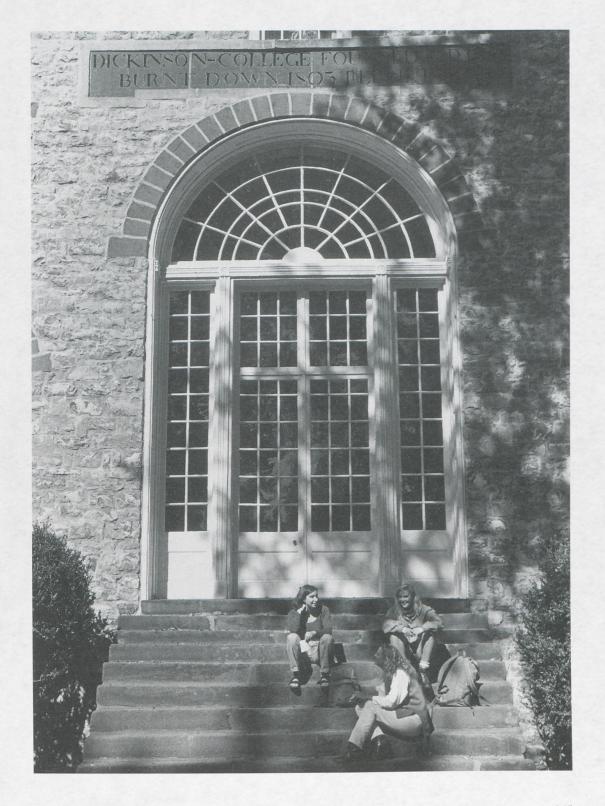
Mr. and Mrs. Joseph M. Bonanno Bernardsville, NJ; 908-204-0717

Dr. and Mrs. Martin J. Kelly Newton, MA; 617-527-2578

Mr. and Mrs. Michael J. Oppelt Doylestown, PA; 215-794-3201

Mr. and Mrs. Paul Pennacchia Manhasset, NY; 516-627-0351

Mr. and Mrs. Steven Washburn Farmington, CT; 203-677-9687



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# Awards to Members of the Faculty

# The Dickinson Award for Distinguished Teaching

The Dickinson Award for Distinguished Teaching was instituted in 1993-94 to replace the Christian R. and Mary F. Lindback Foundation Award which had been given every year since 1960. The award winner receives a cash honorarium as well as a citation prepared and read by the dean of the College at a dinner for trustees, faculty, academic professionals, and administrators just prior to each Commencement Weekend. It is the highest honor the College bestows on a member of the faculty for excellence in teaching. The recipient is selected by the president from a list of nominees provided by former recipients. Previous winners of this award (and the Lindback) are so identified in the faculty section of the directory in this catalogue.

# The Ganoe Award for Inspirational Teaching

The Constance and Rose Ganoe Memorial Fund established in 1969 through a bequest of the late William A. Ganoe of the Class of 1902 provides that an award be given annually to a professor at the College selected by the members of the senior class immediately prior to their graduation through a secret balloting process.

The award winner receives a cash honorarium plus the opportunity to use funds accumulating as a result of the endowment for his or her professional development.

Previous winners of the Ganoe Award for Inspirational Teaching are so identified in the faculty section of the directory in this catalogue.

# The Dickinson Academic Professional Award

The Distinguished Academic Professional Award was established in 1991. The award winner receives a cash

honorarium as well as a citation prepared and read by the dean of the College at a dinner for trustees, faculty, academic professionals, and administrators just prior to Commencement Weekend. This award is given biennially as the highest honor bestowed on an Academic Professional by his or her peers. Previous winners of this award are so identified in the Academic Professional section of the directory in this catalogue.

## **Endowed and Named Chairs**

The College has a number of endowed and named chairs. The holders of these chairs are elected by the Board of Trustees, and the chairs which they hold are indicated in the faculty list. The endowed chairs are as follows:

The Lemuel T. Appold Foundation, endowing the chair of the president of the College, was established by the Board of Trustees from a part of a bequest of Lemuel T. Appold of Baltimore, Maryland, of the Class of 1882 and a generous benefactor of the College.

The Robert Coleman Chair of History The bequest of Robert Coleman, Esq., of Lancaster, Pennsylvania, was designated by the Board of Trustees in 1827 for the endowment of a professorship, making this one of the oldest American professorships.

The Thomas Beaver Chair of English Literature was endowed by Thomas Beaver, Esq., of Danville, Pennsylvania, in 1889.

**The Asbury J. Clarke Chair of Latin** was established in 1918 by the gift of the widow of Asbury J. Clarke, of the Class of 1863.

The Susan Powers Hoffman Chair of Mathematics was endowed in 1923 and named in memory of Susan Powers Hoffman, of Carlisle.

The Richard V. C. Watkins Chair of Psychology was endowed in 1928 by the bequest of Richard V. C. Watkins, of the Class of 1912.

The Martha Porter Sellers Chair of Rhetoric and the English Language is an endowed professorship



established in 1936 by a gift of her son, Prof. Montgomery Porter Sellers, of the Class of 1893.

The Boyd Lee Spahr Chair of American History was endowed in 1948 by the gift of Boyd Lee Spahr, of the Class of 1900.

The George Henry Ketterer and Bertha Curry Ketterer Chair of Religion was endowed in 1949 by the gifts of George Henry Ketterer, of the Class of 1908, and his wife, Bertha Curry Ketterer.

The Robert Blaine Weaver Chair of Political Science was endowed by the bequest of Laura Davidson Weaver, and named for her brother, Robert Blaine Weaver, of the Class of 1874.

The C. Scott Althouse Chair of Chemistry was established in 1950 and named for C. Scott Althouse, a trustee of the College.

The Alfred Victor duPont Chair of Chemistry, named for Alfred Victor duPont, a student at the College, 1814-16, was established in 1950 by the gift of his grandson, the late Irenee duPont, of Wilmington, Delaware.

The Thomas Bowman Chair of Religion was endowed in 1949 by the gift of the Kresge Foundation (Sebastian S. Kresge, L.H.D., Founder), and named for Thomas Bowman of the Class of 1837, the first graduate of Dickinson College to be elected a Bishop of the Methodist Episcopal Church.

The Joseph Priestley Chair of Natural Philosophy was established in 1959 by the gifts of William H. Baker and S. Walter Stauffer in memory of Salome Baker Stauffer.

The William W. Edel Chair in the Humanities was endowed in 1959 by the gift of Merle W. Allen, a College trustee, and his wife, Elizabeth Frederick Allen, "in recognition and commemoration of Dr. Edel's outstanding leadership as president of the College from 1946-1959."

The James Hope Caldwell Memorial Chair was endowed in 1966 by the bequest of Mr. and Mrs. James Hope Caldwell.

The Henry Logan Chair of Economics was established in 1967 by the gift of Henry Logan of the Class of 1910.

The Russell I. Thompson Chair of the Dean of the College was established in 1967 by the gift of Ethel Wright Thompson.

The George W. Pedlow, Class of 1901, Chair of Education was established in 1972 in memory of their father by C. Wesley Pedlow, Jr., of the Class of 1934; Elizabeth Pedlow Maginnis, of the Class of 1929; and John Watson Pedlow, of the Class of 1929.

The Glenn E. and Mary L. Todd Chair was established in 1973 by the bequests of Glenn E. Todd, Class of 1912, and Mary Line Todd, Class of 1923.

The Charles A. Dana Professorship Program was established in 1968 by a matching grant of \$250,000 from the Charles A. Dana Foundation. The income from this fund is to be used annually to subsidize the salaries of Dana Professors in varying amounts but in excess of the average salary for full professors at the time of the appointment.

The George Metzger Endowment Fund is held in trust by the trustees of the fund, and the income therefrom paid annually to Dickinson College at the discretion of the trustees to endow the chair of the dean of women at Dickinson College.

The George Metzger Endowment Fund was established in 1963 by the Metzger College trustees in memory of George Metzger of the Class of 1798 of Dickinson College who made a testamentary provision for the establishment of a college for the education of young women after his death. By the action of the board of trustees of Metzger College in 1913, use of Metzger College, Metzger Hall, was granted to Dickinson College as a residence hall for women students. Fifty years later, Dickinson relinquished its use of Metzger Hall, the property was sold, and the proceeds used to establish the George Metzger Endowment Fund.

The Emil R. And Tamar Ellis Weiss Chair of Fine Arts was endowed in 1991 by a gift from Emil '53 and Tamar Ellis Weiss to support the work of distinguished faculty in the arts.

# Central Pennsylvania Consortium

he Central Pennsylvania Consortium (Dickinson, Franklin & Marshall, and Gettysburg Colleges) was formed in 1968 in order to provide an opportunity for exchange of educational ideas and information among faculty, administrators, and students of the cooperating institutions. Through cooperative action, the three colleges have strengthened and broadened existing programs and offered a number of worthwhile programs that could not be undertaken by a single institution. Areas of cooperation include faculty development, student and faculty exchange, jointly developed scholarly conferences, shared visiting lecturers, student and faculty workshops, library development, and administrative linkages.

Through the Central Pennsylvania Consortium, the member colleges have found a vehicle for engaging in cooperative education and research activity. This cooperation does not impinge upon the autonomy of the participating institutions, but allows them to build upon complementary strengths and to develop new initiatives in concert. The central office of the Central Pennsylvania Consortium is housed on the Franklin & Marshall College campus. The CPC Director is responsible to a three-member board of directors, composed of the presidents of the three consortium colleges, and works cooperatively with the Consortium Council of Academic Deans in developing programming.

The Consortium provides opportunities for exchanges by students and faculty and for other off-campus study. Students may take a single course or enroll at the "host" college for a semester, or a full year. Interested students should consult the Exchange Coordinator in the Office of Off-Campus Studies.

# The Campus

Since its inception in 1773, Dickinson College has occupied facilities on or near its present site. Its oldest surviving building, West College, was constructed in 1804 to replace an earlier structure destroyed by fire. "Old West" and other early buildings occupy the John Dickinson campus, which is surrounded by a low limestone wall built in 1833 and is noted for its lawn with many old and beautiful trees.

As the College has grown, it has created new facilities to the south and west. The Benjamin Rush campus, named for the famous colonial physician who was an active proponent of the College, is to the south and includes several residence halls, open areas for recreation, and the Allison United Methodist Church. The "Morgan Rocks" mark the high ground on campus and recall the deer park which once was located in this area when the property belonged to the family of poet Marianne Moore.

To the west of the John Dickinson campus and across from the Benjamin Rush campus is the Charles Nisbet campus, named for the College's first president. It includes the Boyd Lee Spahr Library, the Anita Tuvin Schlechter Auditorium, the Holland Union Building, and several residence halls.

Farther west are the College's primary athletic facilities, most notable of which is the Kline Sports Center, completed in 1980. The fields close to the center also contain football, tennis, field hockey/lacrosse, and soccer areas, a stadium, and fieldhouse. At the west end of South Street are playing fields and a park built by the College for College and community use.

Native limestone predominates as a building material, helping link new and old architecture. In 1986 the College acquired the Morrison Quarry to ensure access to limestone for future building. Trees, lawns, and landscaping set off pleasant areas for outdoor classes and quiet conversations.

# College Buildings

West College, known as "Old West," (1804) originally housed the entire College; now it is the main administrative building. In addition to administrative offices,



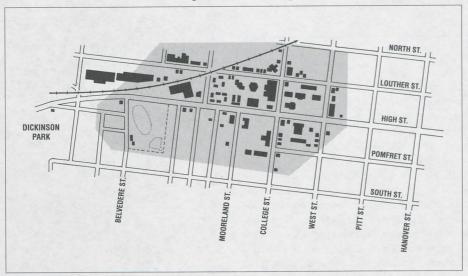
it houses the Durbin Oratory (an interfaith chapel), Memorial Hall (where faculty meetings and lectures take place), and the McCauley Room. The design for the building was a gift from Benjamin Latrobe, architect of the National Capitol.

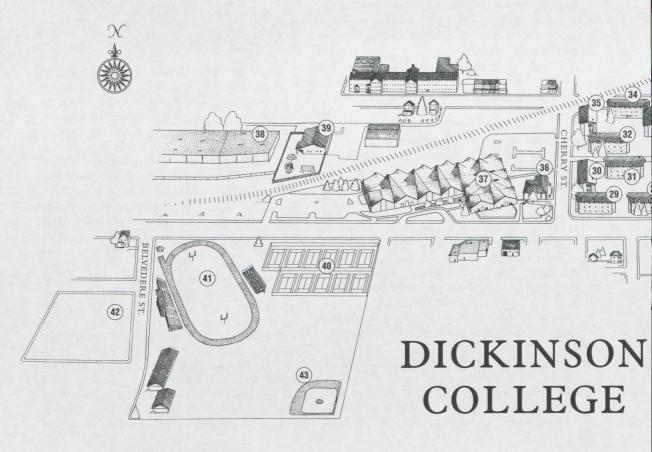
East College, originally constructed in 1836 and used as a hospital during the Civil War, had extensive renovation in 1970 to house the Humanities, Departments of English, Classical Studeis, Philosophy, and Religion are located here in addition to classrooms, seminar rooms, faculty offices, and small lounges for studying.

Ten residence halls, built in the early 1960s and long known as "The Quad," have recently been named to recognize 10 persons connected to Dickinson's founding or to its 19th century development.

The four buildings in the lower quad are named for trustees and presidents: **Armstrong, Wilson, Davidson,** and **Atwater.** John Armstrong (1720-1795) was one of the nine founding patentees of the grammar school, and in 1783 one of the founding trustees of the College. James Wilson (1742-1798), also a patentee and founding trustee, was a signer of the Declaration

## Campus Location Map

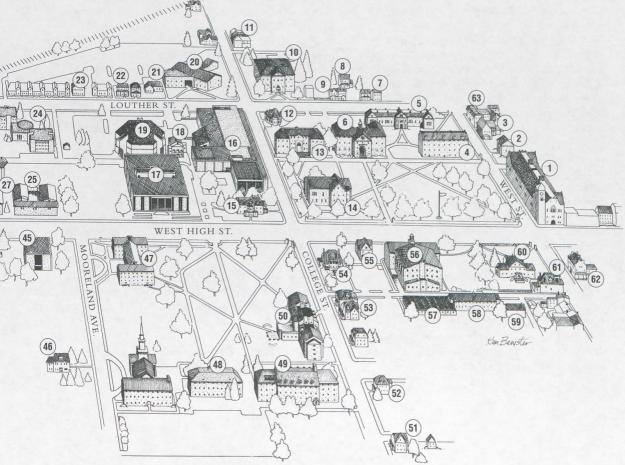




- 1. Denny Hall
- 2. Stuart House
- 3. Rand House
- 4. East College
- 5. Jacob Tome Scientific Building
- 6. West College
- 7. Cook International House
- 8. Hartman Alumni Center
- 9. Financial Aid Office
- 10. Dana Hall of Biology
- 11. Women's Center
- 12. Media House
- 13. Althouse Science Hall
- 14. Bosler Hall
- 15. Biddle House; Clarke Center
- 16. Holland Union Building
- 17. Boyd Lee Spahr Library
- 18. Montgomery Hall
- 19. Anita Tuvin Schlechter Auditorium
- 20. Benjamin D. James Center
- 21. James Center Annex
- 22. Health Services
- 23. Townhouse Residences

- 24. Kisner-Woodward Hall
- 25. McKenney Hall
- 26. Baird Hall
- 27. Cooper Hall
- 28. Buchanan Hall
- 29. Conway Hall
- 30. Longsdorff Hall
- 31. McClintock Hall
- 32. Atwater Hall
- 33. Davidson Hall
- 34. Wilson Hall
- 35. Armstrong Hall
- 36. The Depot
- 37. Kline Life/Sports Learning
- 38. Physical Plant Department
- 39. Dickinson College Children's Center
- 40. Hays Tennis Courts
- 41. Herman Bosler Biddle Athletic Field
- 42. Athletic Field
- 43. Athletic Field
- 44. ROTC Building

- 45. Malcolm Hall
- 46. Mathews Hall
- 47. Morgan Hall
- 48. Witwer Hall
- 49. Adams Hall
- 50. Drayer Hall
- 51. Strayer House
- 52. Landis House
- 53. Todd House
- 54. Waidner Admissions House
- 55. Sellers House
- 56. Emil R. Weiss Center for the Arts
- 57. Communications and Development
- 58. South College
- 59. South College Annex
- 60. President's House
- 61. Reed Hall
- 62. Personnel Office
- 63. Graduate and Professional Studies Office (GAPS)



of Independence and drafted the College's original charter. Robert Davidson (1759-1839), appointed professor of history, geography, chronology, rhetoric, and Belles Lettres at the College and pastor at the Presbyterian church in 1785, was the second president of the College. Born in the year that Armstrong helped to create the grammar school, Jeremiah Atwater in 1809 became the College's third president, created its first academic catalogue and its first explicit rules for campus governance, and strengthened the instruction in religion and science.

The six buildings in the upper quad are named for students and faculty: Buchanan, Cooper, McClintock, Baird, Conway, and Longsdorff. James Buchanan graduated in 1809, top student in his class; although briefly expelled in 1808 for making fun of Davidson's rhymed description of the world, Geography Epitomized, he became a U.S. Senator, Ambassador to Russian, and the fifteenth President of the United States, Thomas Cooper (1759-1839), appointed professor of natural philosophy and chemistry in 1811, was a friend of Joseph Priestley and was responsible for bringing Priestley's scientific apparatus to Dickinson. John McClintock (1814-1870) was appointed in 1836 as professor of mathematics and taught Greek and Latin; an anti-slavery activist, he instigated a protest in Carlisle that prevented the return of some runaway slaves. Spencer Fullerton Baird (1826-1887) graduated from Dickinson in 1840, was appointed professor of natural science in 1845, and introduced field trips in his biology classes; he resigned in 1850 to become one of the founders and the second director of the Smithsonian Institution. Moncure Conway (1832-1907) graduated from Dickinson in 1849, "the College's foremost graduate as a man of letters;" he authored 73 works including a two-volume life of Thomas Paine and was an activist on behalf of antislavery and world peace, and a friend of Emerson, Thoreau, Whitman, Carlyle, Huxley, Browning, and Carnegie. Zatae Longsdorff (1866-1955) graduated in 1887, Dickinson's first woman student; in 1890, she received her M.D., initially worked with the Shoshone Indians in Idaho, later was a general practitioner in New Hampshire, and in 1924 was elected the first woman president of the New Hampshire Medical Society and also was elected to the state legislature.

The Boyd Lee Spahr Library (1967) houses the college collections including printed materials in every form, recordings, microfilm, photographs, and manuscripts. The library provides seating for 600 readers, including closed carrels for faculty use and honors carrels for assignment to students pursuing independent studies. Open stack areas are concentrated on the upper and lower levels. Reference and audio-visual areas are located on the main floor. The Alexander A. Sharp Room near the main entrance offers an opportunity for relaxation in an attractive setting. On the upper level, the Alvah A. Wallace Lounge commands a broad view of the Benjamin Rush Campus and the May Morris Room houses Dickinson's special collections. (For further information, see Academic Resources, page XXX.)

Althouse Science Hall (1958) is named in honor of C. Scott Althouse and contains the Department of Chemistry, a lecture hall, classrooms, teaching laboratories, research laboratories, the chemistry library, the Bonisteel-Yeagley Multiple Telescope Observatory, and faculty offices.

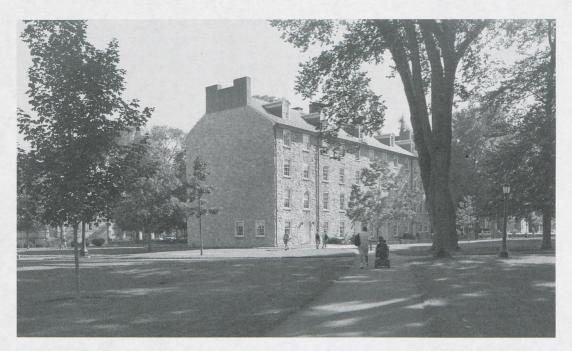
**Jacob Tome Scientific Building** (1883, renovated 1958) contains the Department of Physics and Astronomy and lecture halls, laboratories, the Roscoe O. Bonisteel Planetarium, and research offices.

Dana Biology Building (1966), named in honor of Charles A. Dana, houses the Department of Biology, lecture halls, laboratories, the departmental library, research offices, and a greenhouse.

**The Benjamin D. James Center** (dedicated 1987) is a facility which has been redesigned to provide classrooms, laboratories and offices for the Departments of Environmental Studies, Geology, and Psychology.

**Denny Hall** (1905, renovated 1984) houses the Departments of History, Political Science, Anthropology, Sociology, East Asian Studies, and American Studies.

**South College** (1948, renovated 1970) contains the Department of Mathematics and Computer Science, classrooms, and offices. The College Computer Center is located here.



Bosler Hall (1884, renovated 1983) contains the Departments of Modern Languages and Education as well as classrooms, seminar rooms, offices, the Instructional Media Center, study facilities, and a computer terminal room.

The Emil R. Weiss Center for the Arts (1983) houses the Departments of Music and Fine Arts, the Trout Gallery, and the Rubendall Recital Hall.

Holland Union Building (1964) is named in honor of Homer C. Holland. Appropriately called "the HUB," the union is the center for student services. It houses the College dining room, Mathers Theatre, the Union Station snack bar, the social hall, the Office of Student Services, the writing center, meeting rooms, offices, the radio station, a game room, the college store, the student publications office, a television lounge, the campus post office, and the campus security office.

The Anita Tuvin Schlechter Auditorium (1971) is named in honor of the daughter of Louis A. Tuvin, principal donor. This facility is equipped for two separate performance areas or as a theater in the round.

Communications and Development Building (1981) houses the Offices of Communications, Development, and Publications. The building also houses some classrooms for mathematical sciences, and is connected to South College.

The Herman Bosler Biddle Memorial Athletic Field is the location for collegiate athletics. The 12-acre area contains a football field, tartan track, tennis courts, fields for soccer, field hockey, and lacrosse, baseball diamond, permanent stands, press box, field house, and storage facilities.

Kline Life/Sports Learning Center (1980) is named in memory of Josiah W. and Bessie H. Kline and houses the Department of Physical Education. The 86,000-foot facility contains a multi-purpose gymnasium, 25-yard eight-lane swimming pool with separate diving tank, racquetball and squash courts, dance and exercise areas, offices, seminar room, training room, and weight room. The field house area includes a 1/8 mile perimeter track and enough space for four simultaneous court games.

**Dickinson Park**, Sports and Recreation Area is 19 acres located west of the campus along Route 11.

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The Winfield and Isabelle Cook International House (dedicated 1986) contains the Office of Off-Campus Studies and Internship Office which coordinate many of the College's international education activities, including Dickinson's study-abroad programs and internships overseas.

The Hartman Alumni Center houses the Office of Alumni and Parent Relations and serves as the campus location for the Alumni and Parent Associations. The center combines office space, programming facilities, and guest accommodations in two buildings located at 243 and 249 West Louther Street.

The Dickinson College Children's Center was built in 1989 as day care center for fifty children, age 6 weeks through kindergarten. Part of the Division of Financial Affairs, the Children's Center serves children of Dickinson faculty, staff, and students; alumni; Dickinson School of Law faculty and students; and others in the local community. A dozen Dickinson students work part-time in the program along with the professional staff, and others use the program for academic internships or special class projects. The Children's Center is licensed by the state and accredited by the National Association for the Education of Young Children.

The Depot is a multi-purpose facility designed primarily for student social space. The building may be used for dances, coffeehouses, small concerts, and a wide variety of social events. Banquets, lectures and conferences are other events that may be held in The Depot. Among the amenities in the facility are: a DJ booth with state-of-the-art sound and lighting systems; service kitchen; beverage service area; and a small performance stage. A student-run advisory group creates rules for building usage and plans events to be held in the facility. The Depot is located on Cherry Street next to the Kline Life/Sports Learning Center.

**Biddle House,** originally one of several large family residences along North College Street, now houses the Clarke Center offices and meeting rooms and the College Counseling Cente.

The Rand House, built in 1858, houses the Career Center where students have access to career planning programs, library and interviewing facilities.

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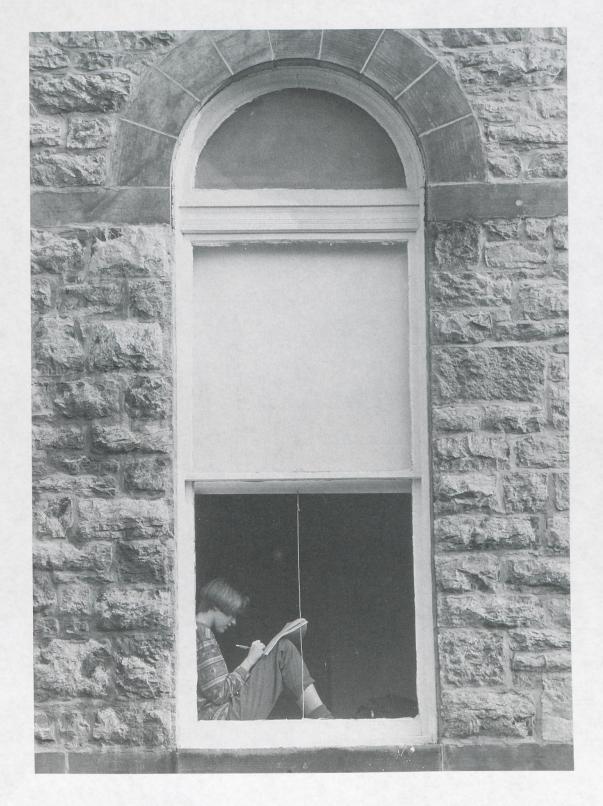
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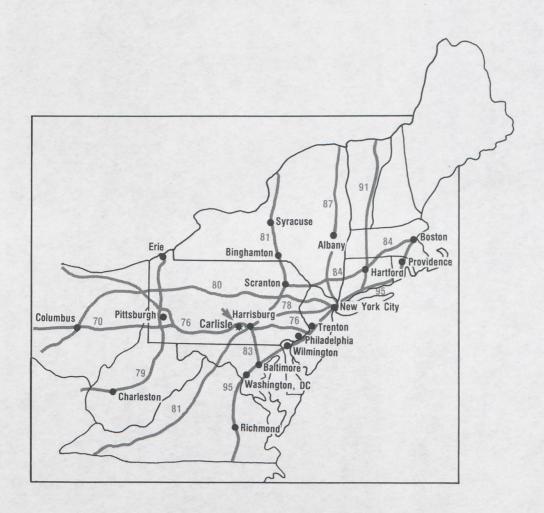
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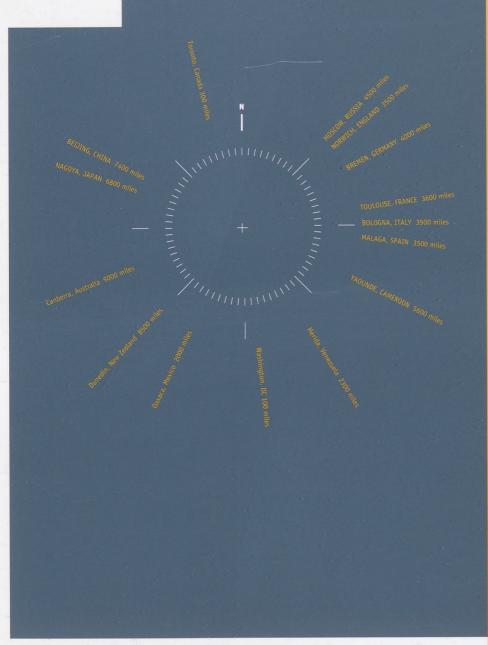
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## How to Get to Dickinson



## 1996-1997 ACADEMIC CALENDAR

Fall 1996 Semester	
New Student Orientation Begins	Friday, August 23
Freshman Seminars Begin	
Express Registration	
Registration	
Classes Begin	
Last Day to Add/Drop Courses or Change To/From	. Wednesday, Hugust 20
Pass/Fail	Tuesday September 10
Last Day to Change in Level for Language, Math,	. Idesday, september 10
and Science Courses	Friday September 27
Off-Campus Study Pre-Registration	. I Hday, September 27
for Spring 1997 Semester	Monday October 7 through Monday October 14
Roll Call Grades Due	
Mid-Term Pause	
Witu-term rause	2 am Manday October 21
	. 8 am, Monday, October 21
Pre-Registration for the Spring 1997 Semester	Friday October 25 through Friday November 1
Last Day to Withdraw from a Course	. Friday, October 23 through Friday, November 1
With a "W" Grade	Tyonday November 5
Thanksgiving Vacation	
Ol P. 1	. 8 am, Monday, December 2
Classes End	
Reading Days	
Final Exam Days	
All Grades Due	. By NOON -Thursday, January 2
Si 1007 S	
Spring 1997 Semester	
New Student Orientation Begins	
Registration	
Registration	. Tuesday, January 21
Classes Begin	. Wednesday, January 22
Last Day to Add/Drop Courses or	
Change To/From Pass/Fail	. Tuesday, February 4
Last Day to Change in Level for	
Language, Math, and Science Courses	. Friday, February 21
Off-Campus Study Pre-Registration for the Fall	
1997 Semester	. Monday, February 24 through Monday, March 3
Roll Call Grades Due	. By NOON - Monday, March 10
Spring Vacation	. 6 pm, Friday, March 14 through
Pre-Registration for the Fall 1997 Semester	
Last Day to Withdraw from a Course	
With a "W" grade	. Tuesday, April 8
Classes End	
Reading Days	
Final Exam Days	
Senior Grades Due	
Baccalaureate	
Commencement	
All Other Grades Due	



The cities on the compass illustrated above represent a sampling of off-campus locations where recent Dickinson students have studied. Dickinson sponsored programs are located in the cities indicated by bold type.